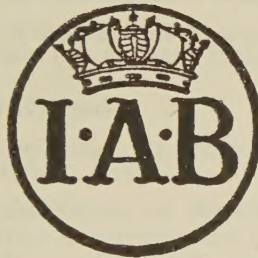


# HELMINTHOLOGICAL ABSTRACTS

*incorporating*  
BIBLIOGRAPHY OF HELMINTHOLOGY  
For the Year 1935.



IMPERIAL BUREAU OF AGRICULTURAL PARASITOLOGY  
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INCORPORATING BIBLIOGRAPHY OF HELMINTHOLOGY  
FOR THE YEAR 1935

Vol. IV, Part 4.

## 329—Actas de la Sociedad de Cirugia de Madrid.

- a. CARDENAL, L.—“Interesante caso de compresión de las vías biliares por quiste hidatídico.” IV, 169-175. [1935.]

## 330—Agricultural Gazette of New South Wales.

- a. SANDERSON, C. J.—“Of what value are worm drenches for sheep? Each drug has a limited use.” XLVI (11), 629-630. [1935.]

## 331—American Journal of Hygiene.

- a. STOLL, N. R.—“Tapeworm studies. II. Persistence of the pasture stage of *M. expansa*.” XXII (3), 683-703. [1935.]

(331a) Continuing his observations on *Moniezia* infection of sheep, Stoll has found that, in addition to apparent lack of ability in its pasture stage to spread easily, if at all [see Helm. Abs., Vol. IV, No. 82a], it has a second striking epidemiological characteristic by its persistence in an already infested pasture. He details instances, during the period 1926 to 1932, of the survival of *M. expansa* on an infested pasture either when sheep were absent from it or, if present, when they did not harbour the parasite and therefore did not contaminate the area with eggs. Particular attention is drawn to two cases, one of 17½ months and the other of 22 months; each period covered two successive winters and the intervening seasons, and the climatic factors of these two survival periods are detailed. A case of poor infectivity of the pasture, during a period of drought, is discussed. While all months are not equivalent as regards the contraction of infection by susceptible animals, it is shown that no period of the calendar can be excluded as an infective one. The bearing of the experimental evidence on the eradication and life-history problem of *Moniezia*, especially with reference to the intermediate host hypothesis, is discussed. J.N.O.

## 332—American Journal of Tropical Medicine.

- a. OTTO, G. F.—“Blood studies on Trichuris-infested and worm-free children in Louisiana.” xv (6), 693-704. [1935.]

## 333—Anales de Medicina Interna.

- a. LÓPEZ ALBO, W., FEIJÓO, A. & MARÍN, M.—“Meningitis crónica cisticercósica con brotes agudos y eosinofilia subaracnoidea. Diagnóstico biológico (segundo caso diagnosticado en vida en España).” IV (6), 533-541. [1935.]

## 334—Anales de Pediatría.

- a. BUXÓ IZAGUIRRE, P.—“Evolución de un quiste hidatídico pulmonar.” II, 101-118. [1935.]

## 335—Angewandte Chemie.

- a. ROSENMUND, K. W.—“Studie über den Zusammenhang von dielektrischer Polarisierung und pharmakologischer Wirkung.” XLVIII (45), 701-705. [1935.]

(335a) Rosenmund has correlated the activity of anthelmintics with their dielectric polarisations. The substances stated to be most active against *Ascaris* are phenols, ketones (particularly butyroktones), and lactones, the greatest activity being obtained when these three types are combined in the same molecule. The physical properties of representatives of these types were examined, measurements being made of surface-tension, swelling power, degree of influence on sol-gel transformations and dipole-moment. It was found that there was a relation between the physiological activity of the substance and its dipole-moment, the latter being more pronounced in the more active substances.

F.R.

## 336—Annales de Médecine et de Pharmacie Coloniales.

- a. LEDENTU, G.—“Les maladies transmissibles observées dans les colonies françaises et territoires sous mandat pendant l'année 1933.” XXXIII (3), 552-816. [1935.]

(336a) In the course of a long and detailed survey of human diseases in the French colonies, Ledentu includes an account of the incidence of intestinal helminths (pp. 665-678), schistosomiasis and filariasis (pp. 680-688). In each of the three groups the data are presented under colonies and are frequently distributed by age and sex.

B.G.P.

## 337—Annales d'Oculistique.

- a. MICHAÏL, D.—“La cysticercose oculaire en Roumanie.” CLXXII (5), 385-402. [1935.]

## 338—Annales de Parasitologie Humaine et Comparée.

- a. LARROUSSE, F.—“Évolution du *Cysticercus fasciolaris* et injection d'extraits vermineux : réaction de type sarcomateux.” XIII (6), 528-532. [1935.]
- b. CALLOT, J.—“Note sur la bilharziose dans le caïdat des Nefzaoua (Tunisie).” XIII (6), 533-536. [1935.]

(338a) By means of intraperitoneal injections of extracts of foreign helminths, Larrousse has produced sarcomatous changes in 3 rats carrying *Cysticercus fasciolaris*. In two cases he used aqueous extract of *Taenia saginata* and in the other of *Fasciola hepatica*.

F.A.C.

## 339—Annales de la Société Belge de Médecine Tropicale.

- a. RODHAIN, J. & GAVRILOV, W.—“Un cas de localisation profonde de *microfilaria volvulus*.” xv (4), 551-560. [1935.]

## 340—Annals and Magazine of Natural History.

- a. BAYLIS, H. A.—“The plerocercoid larva of *Bothridium* (Cestoda).” Ser. 10, xvi (94), 482-485. [1935.]

(340a) From the intestinal wall and mesentery of an Australian water-rat (*Hydromys chrysogaster*) Baylis records encysted plerocercoid larvae which appear to belong to the genus *Bothridium* in that they possess two relatively large tubular bothria having a small aperture at each end. R.T.L.

## 341—Annals of Tropical Medicine and Parasitology.

- a. ADAMS, A. R. D.—“A fourth case of human infestation with *Bertiella studeri* (Cestoda) in Mauritius.” xxix (3), 361-362. [1935.]

## 342—Archiv für Schiffs- und Tropen-Hygiene.

- a. DEMIDOWA, A. J.—“Die Helminthenfauna der Hunde in Aserbeidschan.” xxxix (10), 412-416. [1935.]  
b. SCHMIDT, K.—“Die Echinokokken-Krankheit in Palästina.” xxxix (11), 453-464. [1935.]  
c. PEÑA CHAVARRÍA, A. & ROTTER, W.—“Untersuchungen über Hakenwurmanämie.” xxxix (12), 505-516. [1935.]

(342a) Demidowa records 6 spp. of cestodes, 8 spp. of nematodes and 2 spp. of trematodes from dogs in Azerbaijan. Among the rarer species are *Diocotophyme renale*, *Dicrocoelium lanceatum*, *Euparyphium melis* and *Hymenolepis diminuta*. Echinococcus is also relatively rare. B.G.P.

(342b) Schmidt deals with the incidence of hydatid in Palestine in sheep, goats and cattle and in man. For man there are data on location in various organs, on geographical distribution, and on incidence by religions. The rôle of the jackal as a carrier of Echinococcus may help to explain the high incidence of hydatid in sheep (70%) and cattle (40%). B.G.P.

(342c) In Costa Rica, Peña Chavarría & Rotter find that blood-regeneration after hookworm anaemia is stimulated by iron therapy without removal of worms, and slightly more so by iron therapy following removal of worms, but not at all by removal of worms without iron therapy. Locally, the worst cases are those with a poor meat diet. Hookworm anaemia is primarily a food-deficiency anaemia but the hookworms play an essential part in its aetiology. Thrombosis and embolisms are more frequent in cases of hookworm anaemia. B.G.P.

## 343—Archives du Muséum d'Histoire Naturelle.

- a. DOLLFUS, R. P.—“Sur *Crocodilicola* et autres Hémistomes de Crocodiliens.” xii, 637-646. [1935.]

(343a) Dollfus describes the first new species of Hemistomes to be recorded from *Crocodilia* since 1890, in each case from a previously un-recorded host: *Crocodilicola caïmancola* n. sp. from *Caïman latirostris*,

*Neodiplostoma thomasi* n. sp. from *Osteolaemus tetraspis*, *Neodiplostoma* sp. from *Crocodilus cataphractus*. He finds *Diplostomum brevis* and *D. cinosterni* to be one and the same species, and refers them to *Crocodilicola*. E.M.S.

### 344—Archives of Ophthalmology.

- a. CREGAR, J. S. & BURCHELL, E. B.—“*Filaria subconjunctivalis*. Report of a case.” XIV (3), 435-440. [1935.]

(344a) “*Filaria subconjunctivalis*” is stated in the text to be *Filaria loa* and occurred in a white sailor of French extraction who had lived for some years in the French Cameroons where loasis is endemic. R.T.L.

### 345—Archivio Italiano di Chirurgia.

- a. D'AGOSTINO, M.—“Su alcuni casi di cisti da echinococco.” XL (3), 277-283. [1935.]

### 346—Archivio Italiano di Scienze Mediche Coloniali.

- a. PENSO, G.—“Limiti e orizzonti della parassitologia.” XVI (10), 707-714. [1935.]  
 b. ROSSI, J. E.—“La calciocianamide nella lotta contro le strongilosi (ricerche sperimentali).” XVI (10), 715-721. [1935.]  
 c. SATTA, E.—“Identificazione di un focolaio di bilharziosi intestinale nella Colonia Eritrea.” XVI (10), 760-762. [1935.]  
 d. GIROLAMI, M.—“La profilassi della schistosomiasi nell' Africa Orientale.” XVI (12), 844-852. [1935.]

(346b) Rossi has tested the action of calcium cyanamide against free stages of *Ancylostoma caninum* under more or less natural conditions. Of three bare, wire-netted plots of ground, each 4 by 6 metres, he sprayed two with infective larvae and treated one of these with 960 gm. of the fertilizer. On the unsprayed plot he distributed infected dog faeces which had first been mixed with straw and then (after three days to allow development of larvae) treated with cyanamide in water at the rate of 8 gm. cyanamide per Kg. manure. On each plot two dogs were then kept, all six having been negative for hookworm eggs over a period of 40 days. The dogs on the first (sprayed but untreated) plot became heavily infected, yielding 68 and 92 adult hookworms on treatment after 60 days exposure. Of those on the second (sprayed and dusted) plot, one was uninfected and the other yielded seven adults. Those on the third plot were uninfected. B.G.P.

(346d) Vesical schistosomiasis is present in Italian Somaliland and apparently also in Abyssinia. While it is said not to be endemic in Eritrea, this is very doubtful and is based on the apparent absence of known intermediaries. In view of the danger of Italian troops acquiring and spreading the infection, even possibly establishing it in Italy on their return, Girolami briefly outlines a few control measures. B.G.P.

### 347—Archivos de Medicina Interna.

- a. KOURI, P.—“Técnica para el examen de la bilis, obtenida por intubación duodenal, en el diagnostico de certeza y en el control terapéutico de la fasciolosis hepática.” I, 297-309. [1935.]

## 348—Arhiva Veterinara.

- a. POPESCU, F. & MIRONESCU, D. M.—“Cercetări experimentale pentru stabilirea proprietății teniifuge, la câini, a produsului nemural.” XXVI (5/6), 216-224. [French summary.] [1935.]

(348a) Popescu & Mironescu have found “Nemural” effective against cestodes in dogs (mainly *Dipylidium*). They give one tablet per 5 Kg. body weight after fasting for 12 to 24 hours. Defaecation occurs within 15 minutes and is rather violent, but in 75% of cases all tapeworms are eliminated, as shown by autopsy 24 hours after dosing. B.G.P.

## 349—Askerî Tibbî Baytarî Mecmuası.

- a. MASKAR, U.—“Beygirde iki Distomatoz vak'ası.” XII (123), 277-284. [German summary pp. 283-284.] [1935.]

(349a) Maskar describes two cases of *Fasciola hepatica* infections in horses in Turkey. In one case there were also *Dicrocoelium* eggs in liver nodules. B.G.P.

## 350—Australian Veterinary Journal.

- a. ROBERTS, F. H. S.—“The occurrence of *Capillaria* sp. in a calf.” XI (6), p. 229. [1935.]

(350a) The first record of the occurrence of Capillarid worms in domestic ruminants in Australia is made by Roberts. The parasites were found in the small intestine of a calf but in the absence of male worms no specific diagnosis could be made. D.O.M.

## 351—Beiträge zur Klinischen Chirurgie.

- a. RAČIĆ, J.—“Über Knochenechinokokkose.” CLXI, 411-422. [1935.]

## 352—Berliner Tierärztliche Wochenschrift.

- a. GOLDMANN.—“Die Trichinenschauengesetzgebung in Preussen mit besonderer Berücksichtigung des Regierungsbezirks Köln.” LI (44), 708-710; (45), 725-727. [1935.]

## 353—Boletines y Trabajos de la Sociedad de Cirugía de Buenos Aires.

- a. IVANISSEVICH, O. & INTROZZI, A. S.—“Diagnóstico de la hidatidosis ósea.” XIX (8), 354-362. [1935.]

## 354—British Medical Journal.

- a. DEW, H. R.—“Advances in our knowledge of hydatid disease during the twentieth century.” No. 3900, 620-622. [1935.]  
b. ANON.—“Cysticercosis and epilepsy.” No. 3911, 1214-1215. [1935.]  
c. MACARTHUR, W. P.—“Cysticercosis of the brain.” [Correspondence.] No. 3911, p. 1229. [1935.]

(354c) MacArthur is of opinion that the main object of the cysticerci in the intermediate host “is to remain quiescent”; alive they cause little

or no outward sign but after their death they cause symptoms by swelling and the liberation of toxic products. As a rule three years elapse after death before calcification can be detected by X-rays. Cysticerci in the brain do not as a rule calcify and cannot be seen, consequently X-ray examination should never be restricted to the skull. R.T.L.

### 355—Bulletin de l'Académie de Médecine.

- a. BLANCO, R. P., CAPURRO, F. G. & DÉVÉ, F.—“Un cas humain d'échinococcose hépatique micro-polykystique infiltrée, observé en Uruguay.” *CXIV* (39), 520-523. [1935.]

### 356—Bulletin Mensuel. Société de Médecine Militaire Française.

- a. HUGONOT, G. & SOHIER, R.—“Splénomégalie bilharzienne.” *XXIX*, 161-164. [1935.]
- b. BLANCARDI, C.—“Influence de la fatigue sur certaines hématuries bilharziennes.” *XXIX*, 164-166. [1935.]

### 357—Bulletin de la Société Française d'Urologie.

- a. MERCIER & MONTAGNÉ.—“Injection du système lymphatique juxta-rénal au cours d'une pyélographie ascendante chez un chylurique infesté par la filaire de Bancroft.” *Year 1935*, 240-248. [1935.]

### 358—Bulletins de la Société de Pathologie Exotique.

- a. STÉVENEL, L. & BERNY P.—“Action de la cyanamide de chaux en solution à 3/1000<sup>e</sup> sur les ankylostomes.” *XXVIII* (8), 714-715. [1935.]
- b. STÉVENEL, L. & BERNY, P.—“Présence du physaloptère tronqué dans le gésier d'un poulet à Cayenne.” *XXVIII* (9), 827-828. [1935.]
- c. BERNY, P. & SAINT-PRIX, M.—“La stéphanurose porcine en Guyane Française.” *XXVIII* (9), 828-829. [1935.]
- d. VO CAN CAN, M.—“L'helminthiase chez les enfants de la région provençale.” *XXVIII* (9), 829-832. [1935.]
- e. LINDBERG, K.—“Remarques sur l'épidémiologie de la draconculose dans l'Inde britannique. Un plaidoyer en faveur de recherches.” *XXVIII* (9), 866-875. [1935.]

(358a) Stévenel & Berny find calcium cyanamide effective in destroying hookworm larvae or preventing hatching of the eggs. They recommend its use in rendering human faecal material safe for use as fertilizer. E.M.S.

(358e) In the Deccan dracontiasis reaches its maximal incidence in March to May, i.e. just preceding the onset of the monsoon, and is absent during the latter half of the year. The cyclops commonly found infested in the Deccan are *C. leuckarti* and *C. vermifer* n. sp. As *C. vermifer*, infected to the extent of 12%, occur where fish abound the author doubts the value of fish in controlling the disease. The factors controlling the geographical distribution of dracontiasis require further study. Although *Cyclops multicolor* succumbs rapidly to experimental infection natural infections have not been observed. R.T.L.

## 359—Bulletin de la Société Zoologique de France.

- a. DOLLFUS, R. P.—“ Sur *Contracaecum*, *Thynnascaris* et *Amphicaecum*.” LX, 88-92. [1935.]
- b. DOLLFUS, R. P.—“ Nématode du genre *Goezia* chez une Truite arc-en-ciel (*Salmo irideus* W. Gibbons) d'élevage.” LX, 244-265. [1935.]
- c. DOLLFUS, R. P.—“ Sur quelques Tétrarynques. (Notes préliminaires).” LX, 353-357. [1935.]

(359a) Dollfus has examined fresh specimens of *Thynnascaris legendrei*, and records the presence of an oesophageal appendix. He gives a key for *Contracaecum*, *Thynnascaris* and *Amphicaecum*, but owing to the existence of intermediate forms, considers the two latter as sub-genera of *Contracaecum*.

E.M.S.

(359b) The characters of the six species of *Goezia* are summarized. Specimens from the rainbow trout are described and placed tentatively in the type species, *G. ascaroides*. It is suggested that *G. annulata* of marine fishes may be synonymous with *G. ascaroides*, the latter developing in fresh-water fishes which have preyed on infected marine forms, as in an estuary.

E.M.S.

(359c) Dollfus finds that the type material of *Floriceps saccatus* Cuv. 1817 (= *Anthocephalus elongatus* Rud. 1819) includes two species for which he prefers the names *Dasyrhynchus ingens* (Linton, 1921) and *Gymnorhynchus horridus* Goodsir 1841, rejecting the names *Floriceps* and *Anthocephalus*. His family Floricipitidae becomes Gymnorhynchidae, and *G. horridus* is made type of the new sub-genus *Molicola*. Tetrarhynchid larvae are plerocerci which early lose their vesicles. They can survive by re-encystment in a variety of accidental hosts.

E.M.S.

## 360—Bulletin des Travaux Publiés par la Station d'Aquiculture et de Pêche de Castiglione.

- a. DOLLFUS, R. P.—“ Sur quelques parasites de poissons récoltés à Castiglione (Algérie). I.” Année 1933, fasc. 2, 199-279. [1935.]

(360a) Dollfus records a number of trematode, cestode and nematode parasites of marine fishes collected at the marine station at Castiglione in Algeria. He discusses the systematic position of the Accacoeliidae which he divides into (i) Tetrochetinae (without copulatory apparatus) for 3 genera *Orophocotyle* Looss, *Tetrochetus* Looss and *Mnemodhneria* n. nom. for *Odhnerium* Yamaguti 1934 and (ii) Accacoeliinae (with protractile copulatory apparatus) for *Rhynchopharynx* Odhner 1928, *Accacoelium* Monticelli 1893, *Accacladium* Odhner 1928 and *Accacladocoelium* Odhner 1928. A table showing a provisional differentiation of those Accacoeliidae parasitic in *Mola mola* is included. Known species of the cestode genera *Fistulicola* and *Nybelinia* and the nematode genus *Contracaecum* are discussed. R.T.L.

## 361—Canadian Journal of Research. Section D.

- a. CAMERON, T. W. M.—“ Studies on the endoparasitic fauna of Trinidad mammals. I. Some parasites of Trinidad deer.” XIII (5), 89-96. [1935.]

(361a) Four new Trichostrongylidae, of which three are types of new genera, and a cestode fragment are recorded from *Mazama simplicicornis*

an indigenous species of deer in Trinidad. (i) *Nematodirus urichi* n. sp. is distinguished from other known species by the leaf-crown of minute triangular elements and by the pointed tail of the female which is not truncated. (ii) *Mazamastrongylus trinitatis* n. g., n. sp. differs from other genera in the division of the oesophagus into two parts, the presence of cervical and pre-bursal papillae and of an accessory bursal membrane. It shows affinities to *Ostertagia* and *Cooperia*. (iii) *Ierestrongylus filiformis* n. g., n. sp. is based on male specimens only and is differentiated from *Trichostrongylus* although their appearance suggests affinity with Heligmosominae rather than Trichostrongylinae. The spicules are long and filiform and there is a ventral "crest." A gubernaculum is absent. (iv) *Mazamanema longibursatum* n. g., n. sp. is based on a poorly preserved male but is differentiated from other genera by the possession of a ventral "crest", a pre-bursal groove and the arrangement of the bursal rays. The dorsal ray is deeply split.

R.T.L.

### 362—Canadian Public Health Journal.

- a. CAMERON, T. W. M.—"Parasitology and its relation to public health in Canada." XXVI (11), 541-547. [1935.]

### 363—Chinese Medical Journal.

- a. FENG, L. C.—"The present status of the knowledge of the mosquitoes of China and their relation to human diseases." XLIX (11), 1183-1208. [1935.]  
 b. UTTLEY, K. H.—"On the incidence of clonorchiasis as met with in post-mortem examinations in Kowloon, Hongkong." XLIX (11), 1267-1268. [1935.]

(363a) This is a useful summary of published literature on the intermediate hosts of malaria and filaria in China. Two species of filaria, viz., *F. bancrofti* and *F. malayi* are known in China and are chiefly found in the provinces south of 35°N. *F. bancrofti* occurs in the provinces along and to the south of the Yangtze river. *F. malayi* has so far been found only in Chekiang Province. *Anopheles hyrcanus* var. *sinensis* is perhaps the most important carrier of both species as it is the commonest mosquito in rural districts where filariasis is prevalent. Other carriers for *F. bancrofti* are *Culex pipiens* var. *pallens* and *C. fatigans*, and *Mansonia* (*Mansonioides*) *uniformis* for *F. malayi*.

R.T.L.

(363b) In 367 consecutive post-mortems on adult Chinese at Kowloon 13.9% were found to have *Clonorchis sinensis*. 16.95% of the cases were males, 5.13% were females. Clonorchiasis does not appear to be a frequent cause of death.

R.T.L.

### 364—Clínica y Laboratorio.

- a. GIL CHÓLIZ, J.—"Un caso de quiste hidatídico supurado, tratado por el neumotórax y la vacuna antipiógena polivalente Bruschetini." XXVI, 404-405. [1935.]

### 365—Comptes Rendus des Séances de l'Académie des Sciences.

- a. JOYEUX, C. & BAER, J. G.—"Recherches sur le cycle évolutif d'*Hymenolepis pistillum* Duj." CCI (17), 742-743. [1935.]

(365a) Joyeux & Baer have taken advantage of the discovery of *Hymenolepis pistillum* Duj., in the shrew, *Crocidura russula*, to follow out the life-cycle.

Ripe segments were fed to myriapods of the species *Glomeris marginata* and *Gl. conspersa*, which shortly became infested with cysticercoïds, apparently *Staphylocystis micracanthus* Villot. This was later verified by the discovery in the stomach of a shrew of the remains of a naturally infected *Glomeris* sp. with some young tapeworms already actively migrating towards the duodenum. The larval genus *Staphylocystis* is held to be synonymous with *Urocystis* Villot, so that *Staphylocystis micracanthus* falls as a synonym of *Urocystis hymenolepididis pistilli* (Duj.).

E.M.S.

### 366—Comptes Rendus des Séances de la Société de Biologie.

- a. MATHIAS, P. & VIGNAUD, R.—“ Sur le cycle évolutif d'un trématode de la sous-famille des Pleurogenetinae Looss (*Pleurogenes claviger* Rud.).” CXX (32), 397-398. [1935.]

(366a) Mathias & Vignaud have experimentally traced the life-cycle of *Pleurogenes claviger* from xiphidiocercariae found in *Bithynia tentaculata* near Nîmes through the larvae of Phryganea and Dytiscus. The encysted cercaria developed to adult when these were fed to *Hyla arborea*, *Rana temporaria* and *Molge palmata*.

R.T.L.

### 367—Crónica Médica Valencia.

- a. XIMÉNEZ DEL REY, M. & LAPORTA BORT, L.—“ Contribución al estudio clínico de la anquilostomiasis.” XXXIX (817), 249-260. [1935.]

### 368—Crónica Médico-Quirúrgica de la Habana.

- a. QUINONES, J. F.—“ Contribución al estudio de las hiperclorhidrias. Observaciones respecto a las hiperclorhidrias provocadas por el tricocéfalo dispar.” LXI (4), 183-185. [1935.]

### 369—Deutsche Pelztierzüchter.

- a. WETZEL, R. & MÜLLER, F. R.—“ Die Lebensgeschichte des schachtelhalmförmigen Fuchslungenwurmes *Crenosoma vulpis* und seine Bekämpfung.” X (19), 361-365. [1935.]

(369a) Wetzel & Müller have elucidated the life-history of the lung-worm of foxes, *Crenosoma vulpis*. The worm, which is of considerable economic importance, is not readily amenable to treatment, and the authors therefore suggest measures for its control.

Larvae discharged in the faeces penetrate the foot of various specified slugs and snails where moults occur on the 11th and 17th days. When infected molluscs are fed to foxes the larvae migrate via mesenteric lymph glands, thoracic duct, and right heart, become adult, and produce embryos by the 21st day after feeding. Control measures based on the eradication of molluscs are suggested.

B.G.P.

### 370—Deutsche Tierärztliche Wochenschrift.

- a. LÜHRS, E.—“ Die wirtschaftliche Bedeutung des Spulwurmbefalls der Schweine.” XLIII (44), 691-693. [1935.]

(370a) To test the economic effects of ascariasis in pigs, Lührs weighed 35 pigs fortnightly for six weeks, 21 of them being infected with ascaris

[this is said to make a worm incidence of 40%!]. The uninfected were about 3.7 Kg. heavier than the infected at the beginning of the experiment, and about 10 Kg. heavier at the end. Also, he estimates that 30% of young pigs are lost through worms. On the basis of the 18.5 million pigs slaughtered in Germany each year and a 10% ascariasis incidence, the economic loss due to reduced weight is estimated at RM.48 millions annually; and on the basis of 20 million pigs under one year old living at the 1934 census and a 30% reduction in numbers due to ascariasis, the loss is estimated at RM.10 millions annually. The total of RM.58 millions per annum is thought to be considerably underestimated. B.G.P.

### 371—Deutsche Zeitschrift für Nervenheilkunde.

- a. ROTHFELD, J.—“Über die Präcipitationsreaktion bei Hirncysticerkose.” CXXVII (3/4), 93-102. [1935.]

(371a) Rothfeld gives a detailed clinical discussion of four human cases of cerebral cysticercosis, diagnosed by the precipitin reaction as was described by Trawiński & Rothfeld elsewhere [see Helm. Abs., Vol. IV, No. 323a]. B.G.P.

### 372—East African Medical Journal.

- a. CAWSTON, F. G.—“Evidence of the successful destruction of schistosomes.” XII (8), 244-246. [1935.]

### 373—Écho Médical du Nord.

- a. COUTELEN, F.—“Remarques sur la pathogénie des oedèmes de Calabar et sur la longévité des filaires *Loa-loa* adultes et des microfilaires; à propos d'un cas de filariose diurne de Guyot.” III (23), 885-893. [1935.]

(373a) The longevity of *Loa loa* adults, and the pathogenesis of Calabar swellings are discussed by Coutelen in connexion with a woman who had lived in France since 1924, when she returned from the French Congo. There were no symptoms until 1931 when typical Calabar swellings began to appear, but no microfilariae were found. After three months the swellings ceased and three adults appeared successively in the eye (the first two were extirpated). In November 1931 microfilariae were detected for the first time, over seven years after leaving the Congo. The literature on longevity of *Loa* is reviewed. Calabar swellings are probably examples of local anaphylaxis. B.G.P.

### 374—Forze Sanitarie.

- a. BAGGIO, G.—“Cisti d'echinococco del polmone: fistolizzata nei bronchi e nella pleura a sinistra, chiusa a destra.” IV (15), 928-937. [1935.]

### 375—Gazzetta Internazionale di Medicina e Chirurgia.

- a. PATERNO, A.—“Le alterazioni del tessuto epatico limitrofo alle cisti di echinococco.” XLV, 417-418. [1935.]

## 376—Giornale di Batteriologia Immunologia.

- a. SCARTOZZI, C. & PARVIS, F.—“Contributo allo studio della formula leucocitaria nella bilharziosi vescicale egiziana.” xv (4), 571-582. [1935.]

## 377—Indian Journal of Medical Research.

- a. JACOCKS, W. P., KENDRICK, J. F. & SWEET, W. C.—“Hookworm incidence and intensity in South India by districts.” xxiii (2), 441-446. [1935.]

## 378—Indian Journal of Veterinary Science and Animal Husbandry.

- a. PANDE, P. G.—“The etiology of hump sore in cattle: a preliminary report.” v (4), 332-342. [1935.]  
 b. PANDE, P. G.—“Acute amphistomiasis of cattle in Assam: a preliminary report.” v (4), 364-375. [1935.]  
 c. BHALERAO, G. D.—“Anthelmintics for the worms occurring in the alimentary canal of the horse.” v (4), 381-385. [1935.]

(378a) “Hump sore” affects 90% of the cattle in Assam especially in the rural areas of Tezpur and Sootia. The chief symptom is that of pruritis. It is a filarial disease, adults and microfilariae having been isolated from the lesions. The worms have not been so far diagnosed beyond *Setariinae*.  
 R.T.L.

(378b) Sixty per cent. of the cattle of certain villages of the Kamrup district of Assam are said to have emaciation and diarrhoea due to immature amphistomes in the small intestine. The local species of *Vivipara* show a heavy infection with Amphistome cercariae.  
 R.T.L.

(378c) This paper summarizes recent published work on anthelmintics for the various intestinal parasites of the horse.  
 R.T.L.

## 379—Indian Medical Gazette.

- a. DANG, J. M. L.—“An unusual site for a hydatid cyst.” LXX (10), p. 566. [1935.]  
 b. MOZUMDAR, S.—“Hydatid cyst in the broad ligament.” LXX (12), p. 686 [1935.]

## 380—Indian Veterinary Journal.

- a. SINGH, M.—“*Filaria oculi* in camel. (*Setaria* sp.).” xii (2), p. 144. [1935.]

(380a) A specimen from the camel's eye is identified as *Filaria leesii*.  
 R.T.L.

## 381—Jahreskurse für Ärztliche Fortbildung.

- a. TIMMERMANS, F.—“Wurmkrankheiten (Oxyuriasis, Ascaridiasis).” xxvi, 25-44. [1935.]

## 382—Japanese Journal of Experimental Medicine.

- a. ISHII, N.—“Studies on rat trematodes.” XIII (5), 629-630. [1935.]
- b. ISHII, N. & MATSUOKA, F.—“Studies on bird trematodes. V. Intermediate host and a new species of bird trematodes.” XIII (6), 751-756. [1935.]

(382a) From 2 out of 254 wild rats from the drains and rivers of Tokio *Echinostoma cinetorchis* was found. In 166 albino rats from Tokio district 4 species of trematodes were collected: *Echinostoma cinetorchis*, *E. macrorchis*, *Echinochasmus elongatus* and *Clonorchis sinensis*. Ishii infected mice and guineapigs with *E. macrorchis* by feeding with cysts from the cardiac tissue of *Viviparus malleatus*. He quotes the known intermediaries of the other forms.

R.T.L.

(382b) In the fresh-water fish *Pseudorasbora parva* from Lake Teganuma, Japan, several encysted cercariae were found. By experimental feeding one was found to be the infective stage of *Clonorchis sinensis*, two produced adult trematodes in ducks, viz., *Cyathocotyle fusa* and *Metorchis orientalis*. The encysted cercariae and adults are described and the latter are also figured by Ishii & Matsuoka.

R.T.L.

## 383—Japanese Journal of Zoology.

- a. YAMAGUTI, S.—“Studies on the helminth fauna of Japan. Part 5. Trematodes of birds, III.” VI (2), 159-182. [1935.]
- b. YAMAGUTI, S.—“Studies on the helminth fauna of Japan. Part 6. Cestodes of birds, I.” VI (2), 183-232. [1935.]
- c. YAMAGUTI, S.—“Studies on the helminth fauna of Japan. Part 7. Cestodes of mammals and snakes.” VI (2), 233-246. [1935.]
- d. YAMAGUTI, S.—“Studies on the helminth fauna of Japan. Part 8. Acanthocephala, I.” VI (2), 247-278. [1935.]
- e. ISHII, N.—“Studies on the family Didymozoidae (Monticelli, 1888).” VI (2), 279-335. [1935.]
- f. YAMAGUTI, S.—“Studies on the helminth fauna of Japan. Part 9. Nematodes of fishes, I.” VI (2), 337-386. [1935.]
- g. YAMAGUTI, S.—“Studies on the helminth fauna of Japan. Part 10. Amphibian nematodes.” VI (2), 387-392. [1935.]
- h. YAMAGUTI, S.—“Studies on the helminth fauna of Japan. Part 11. Reptilian nematodes.” VI (2), 393-402. [1935.]
- i. YAMAGUTI, S.—“Studies on the helminth fauna of Japan. Part 12. Avian nematodes, I.” VI (2), 403-431. [1935.]
- j. YAMAGUTI, S.—“Studies on the helminth fauna of Japan. Part 13. Mammalian nematodes.” VI (2), 433-457. [1935.]

(383a) Twelve new species of trematodes are described from birds in Japan by Yamaguti. Two are types of new genera, viz., *Cloacitrema ovatum* n. g., n. sp. in the Philophthalmidae; and *Allodiplostomum scolopacis* n. g., n. sp. in the Strigeidae. The following additional species are described as new: *Spelophallus bucephalae*, *Paramonostomum bucephalae*, *Echinostoma corvi*, *E. robustum*, *Microparyphium capellae*, *Tamerlania japonica*, *Harmonostomum symmatici*, *Leucochloridium sine*, *Diplostomum vanelli* and *Strigea elongata*.

R.T.L.

(383b) Of 32 avian cestodes described by Yamaguti 22 are new species. A new genus of *Taeniidae* is based on *Paracladotaenia accipitris* n. g., n. sp. in *Accipiter virgatus gularis* from Formosa. The other new species are: *Tetrabothrius lari*, *Cotugnia taiwanensis*, *Railletina* (*Railletina*) *pici*, *R. (R.)*

*galli*, *R. (R.) taiwanensis*, *Killigrewia oenopopeliae*, *K. streptopeliae*, *Paromia pycnonoti*, *Dilepis turdi*, *D. capellae*, *Amoebotaenia oligorchis*, *Anomotaenia nycticoracis*, *Hymenolepis nyrocae*, *H. japonica*, *H. charadrii*, *H. taiwanensis*, *Haploparaxis japonensis*, *H. scolopacis*, *H. clerci*, *Diorchis nyrocae* and *Cladotaenia circi*.  
R.T.L.

(383c) Most of the descriptions refer to known species but two new species are described from reptiles, viz., *Ophiotaenia japonensis* n. sp. from *Elaphe quadrigata* and *Natrix tigrina*, and *Diphyllbothrium serpentis* n. sp. from *Naja naja atra*. This is the first species of this genus to be recorded from reptiles.  
R.T.L.

(383d) Three new genera and 11 new species occur among the descriptions of Japanese Acanthocephala given by Yamaguti. *Longicollum pagrosomi* n. g., n. sp. and *Tenuiproboscis misgurni* n. g., n. sp. are placed in the Echinorhynchidae, and *Arhythmacanthus fusiformis* n. g., n. sp. in a new family Arhythmacanthidae which contains also *Heterosentis*. In addition the following new species are described: *Echinorhynchus cotti*, *Acanthocephalus minor*, *A. opsalichthydis*, *Acanthocephaloides rhinoplagusiae*, *Centrorhynchus elongatus*, *Polymorphus capellae*, *Heterosentis plotosi* and *Neoechinorhynchus zacconis*.  
R.T.L.

(383e) Ishii revises the family Didymozoidae, gives a key to the known subfamilies, genera and species and lists the hosts, habitats and localities. His classification is as follows: NEMATOBOTHRINI n. subf. with *Nematobothrium* made up of *Benedenozoum* n. subg. (including *N. (B.) sabae* n. sp.) and *Maclarenozoum* n. subg.; and *Atalostrophium* made up of *Atalosparganum* n. subg. and *Maccalozoum* n. subg. GONAPODASMIINI n. subf. with only *Gonapodasmius* (including *G. okushimai* n. sp.). DIDYMOZOIDINI n. subf. with *Didymozoum* (including the new species *longicollis* and *filicollis*), *Didymocylindrus filiformis* n. g., n. sp., *Didymoproblema fusi-forme* n. g., n. sp., *Lobatozoum multisacculatum* n. g., n. sp. and *Didymocystis* (including the new species *semiglobularis*, *bilobata*, *simplex*, *crassa*, *soleiformis* and *ovata*). KÖLLIKERIINI n. subf. with only *Köllikeria* made up of *Wedlia* n. subg. (including the new species *reniformis* and *globosa*) and *Köllikerizoum* n. subg. The new species are described and illustrated.  
R.T.L.

(383f) Yamaguti describes from Japanese fishes 37 species of nematodes belonging to 29 genera. Of these species 26 are new and 2 *Capillaria* remain undetermined. New forms included are as follows: *Raphidascaris chirocentri* n. sp.; *Contracaecum histiophori* n. sp.; *C. pagrosomi* n. sp.; *C. gracile* n. sp.; *Paramisakis lophii* n. sp.; *P. muraenesocis* n. sp.; *Philometra parasiluri* n. sp.; *P. opsalichthydis* n. sp.; *Philometroides* n. g. for *P. seriola*; *Ichthyophilaria dasyctoti* n. g., n. sp.; *Sanguinophilaria lateolabracis* n. g., n. sp.; *S. scomberomori* n. sp.; *S. pinnicola* n. sp.; *Clavinema parasiluri* n. g., n. sp.; *Anguillicolidae* n. fam. for *Anguillicola globiceps* n. g., n. sp.; *Hedruris bryttosi* n. sp.; *Heliconema anguillae* n. sp.; *Rhabdochona zacconis* n. sp.; *R. amago* n. sp.; *R. girellae* n. sp.; *R. gymnocranii* n. sp.; *Spinitectus mogurnae* n. sp.; *Procamallanus sigani* n. sp.; *Cucullanus robustus* n. sp.; *C. filiformis* n. sp. and *Cucullanellus pleuronectidis* n. sp.  
R.T.L.

(383g) Two new nematodes, *Spinicauda bufonis* n. sp. and *Rhabdias nipponica* n. sp. are included. These bring the number of known nematode species in Japanese Amphibia to 14.  
R.T.L.

(383h) The five new species of nematodes described from Japanese reptiles are *Ophidascaris natricis*, *Ascaridia japalurae*, *Spiromoura japonensis*, *Kalicephalus laticaudae* and *K. natricis*. R.T.L.

(383i) Of 26 species of nematodes in Japanese birds 13 are described as new and *Spirofilaria podicipitis* n. g., n. sp. is type of a new genus of Filariidae. The other new species are: *Contracaecum torquatum*, *C. milvi*, *Subulura taiwanensis*, *Diplotrinaena monticolae*, *Eufilaria lari*, *Cyrnea graphophasiani*, *C. excisiformis*, *Dispharynx emberizae*, *Cosmocephalus capellae*, *Echinuria cincli*, *Tetrameres scolopacis* and *Capillaria vanelli*. R.T.L.

(383j) Of the 26 nematodes described from Japanese mammals all but 3 are well known in other countries. The new species are *Enterobius muris* from a mouse, *Longistriata leporis* from a hare and *Strongylacantha rhinolophi* from a bat. R.T.L.

### 384—Journal of the American Medical Association.

- a. DRAKE, E. H., HAWKES, R. S. & WARREN, M.—“An epidemic of trichinosis in Maine.” CV (17), 1340-1343. [1935.]
- b. KELLER, A. E., GOOGE, J. T., COTTRELL, H. B., MILLER, JR., D. G. & HARVEY, R. H.—“Clinical study under controlled conditions of 1,083 children with hookworm.” CV (21), 1670-1675. [1935.]

(384a) Eosinophilia without definite illness may occur in individuals who consume small quantities of trichinous meat. Bachman's intradermal reaction is positive in those who are or have recently been ill with trichinosis but is negative in latent cases. The outbreak reported was traced to imperfectly cooked home-made pork sausages. R.T.L.

### 385—Journal of the American Veterinary Medical Association.

- a. REBRASSIER, R. E.—“A note on *Oncicola canis* (Kaupp), a parasite of the dog.” LXXXVII (5), 573-574. [1935.]
- b. CORENZWIT, H. M.—“Experiments leading to an effective treatment for canine whipworms.” LXXXVII (6), 661-679. [1935.]
- c. STUBBS, E. L. & LIVE, I.—“The diagnosis of filariasis in the dog.” LXXXVII (6), 680-682. [1935.]
- d. WRIGHT, W. H.—“Additional American records of *Diocetophyme renale* from the dog.” LXXXVII (6), 682-683. [1935.]

(385a) A considerable infection with acanthocephala belonging to the species *Oncicola canis* (Kaupp, 1919) is reported in a dog. This case is the eighth recorded for the United States. R.T.L.

(385b) Where exercise yards are heavily infested with *Trichuris caecetomy* of dogs is recommended. By the use of a technique involving the passage into the colon of a glass and rubber tube and the injection of nicotine solution, 75% of cases were treated successfully. Of 192 dogs treated by intracaecal insertion of nicotine in capsules, 93.2% passed whipworms and remained negative afterwards. R.T.L.

(385c) Stubbs & Live find that the embryos of *Dirofilaria immitis* can be demonstrated more easily in blood films after clotting has taken place than in freshly made preparations. The embryos are readily seen in the serum even though inactive or dead. R.T.L.

## 386—Journal of Animal Ecology.

- a. CAMPBELL, J. W.—“The gapeworm (*Syngamus*) in wild birds.” IV (2), 208-215. [1935.]

(386a) Campbell has recovered *Syngamus trachea* from the crow, rook, jackdaw, magpie, starling, sparrow, purple sandpiper and pheasant, the rooks being heavily infested. *S. merulae* has been recovered from 3 species of the genus *Turdus*. He found the worms attached to the upper third of the trachea in starlings and to the lower third in adult rooks and pheasants.

P.A.C.

## 387—Journal of the Egyptian Medical Association.

- a. STIVEN, H.—“Radio opaque calculus in a bilharzial appendix.” XVIII(10), 656-659. [1935.]

## 388—Journal of Helminthology.

- a. HURST, R. H. & TRIFFITT, M. J.—“Experiments on the control of “potato-sickness” by the addition of certain chemicals to soil infected with *Heterodera schachtii*.” XIII (4), 191-200. [1935.]
- b. HURST, R. H. & TRIFFITT, M. J.—“Calcium cyanamide and other artificial fertilisers in the treatment of soil infected with *Heterodera schachtii*.” XIII (4), 201-218. [1935.]
- c. TRIFFITT, M. J. & HURST, R. H.—“On the thermal death-point of *Heterodera schachtii*.” XIII (4), 219-222. [1935.]
- d. GOODEY, T.—“*Brevibucca saprophaga* gen. et sp. nov., a nematode from a rotting lily bulb-scale.” XIII (4), 223-228. [1935.]

(388a) Ferric chloride, ferrous sulphate, chinisol and potassium ethyl xanthate are shown to have a toxic effect on free larvae and the cyst contents of *Heterodera schachtii*.

Ferric oxide and dilute solutions of ferrous sulphate were found to retard the hatching of larvae from cysts, in the presence of potato root excretion, for about two weeks; this was apparently due to a neutralisation of the stimulant substance contained in the root excretion. A small scale field experiment is described in which ferric chloride (12½ cwt. per acre), ferrous sulphate (15 cwt. per acre), ferric oxide (6 cwt. per acre), chinisol (1¼ cwt. per acre) and potassium ethyl xanthate (1¼ cwt. per acre) were applied in the rows at the time of planting. Plants grown in these treated areas showed none of the signs of “potato-sickness” shown by the controls, than which they gave in every case markedly higher yields. M.J.T.

(388b) Laboratory experiments showed that calcium cyanamide had a toxic effect on the cyst contents of *Heterodera schachtii*. Soaking of cysts in water containing calcium cyanamide caused a retardation in the hatching of the larvae, prolonged soaking proved lethal. Vapours given off from calcium cyanamide in soil were lethal to free larvae. About 5% added moisture to an air-dry mixture of soil and calcium cyanamide proved to be of greater toxicity than drier or moister mixtures. Urea was found to resemble calcium cyanamide in its effects on the eelworms. Pot experiments showed that dressings of calcium cyanamide at the rates of from 20 to 70 cwt. per acre produced good plants in heavily infected soil and limited the production of new cysts on the roots to a very small number. M.J.T.

(388c) Triffitt & Hurst describe the determination of the thermal death point of *Heterodera schachtii* and compare their findings with those of earlier workers.

Hot water treatment at 116°F. for 45 minutes proved lethal, as did exposure to 120°F. for 30 minutes and 130°F. for 5 minutes. Slightly shorter exposures to these temperatures caused a marked retardation in hatching of the contained larvae. Exposure to 110°F. for periods up to 1 hour had no apparent effect on the nematode. By comparison with other recorded findings it is concluded that the degree of moisture present during the application of heat is decisive in determining the resistance of the nematode. M.J.T.

(388d) Goodey describes and figures a new genus and species of saprophagous nematode from a rotting lily bulb-scale under the name of *Brevibucca saprophaga*. It belongs to the family Rhabditidae, somewhat resembles Rhabditis but differs from it in having a short buccal cavity. Two anatomical features are noteworthy: (i) the female has a pair of lateral ovoid glands which open into the terminal region of the uterus; (ii) the spicules in the male are paired but the right one is smaller than the left and has a different shape. T.G.

### 389—Journal of the Ministry of Agriculture. London.

- a. TAYLOR, E. L.—“Parasitic gastritis: the causes underlying its development in sheep.” XLII (7), 647-657. [1935.]

(389a) Taylor discusses the causes underlying the development of parasitic gastritis in sheep and points out that the disease is not merely a matter of infection of susceptible sheep by worms.

It results from the operation of all those factors that lead to the ultimate collection of sufficient worms to cause the disease; overcrowding, which is obviously of importance, is not the sole factor. The increase of parasites to disease-producing numbers is dependent upon three factors. (i) The proportion of helminth eggs that reach the infective stage on the ground. This is increased by ploughing and cultivation, by folding sheep on arable land, by the presence of long grass and, in the case of trichostrongyles, by prolonged drought followed by a wet period. (ii) The proportion of infective larvae picked up by the sheep. This is increased by drought and shortage of herbage which make the animals graze closer to the ground, by the nature of the pasture, especially when it contains a considerable amount of clover harbouring infective larvae, and by overstocking. (iii) The proportion of infective larvae reaching the sheep's stomach that ultimately develop to maturity. This depends on the animals' age since adult sheep are more resistant than lambs to infestation, and on malnutrition, mainly as the result of drought, when the sheep's resistance is lowered and worms are then able to establish themselves. The author points out that the control of this disease is not likely to be satisfactorily achieved until some safe, cheap, effective and easily administered drug treatment is found, other than copper sulphate which only serves to remove *Haemonchus*. J.N.O.

## 390—Journal of Parasitology.

- a. FAUST, E. C.—“Notes on helminths from Panama. I. *Taxorchis schistocotyle* (Fischöeder, 1901), from the Panamanian capybara, *Hydrochoerus isthmus* Goldman, 1912.” *xxi* (5), 323-331. [1935.]
- b. FAUST, E. C. & MARTINEZ, W. H.—“Notes on helminths from Panama. II. Rare human nematode eggs in the feces of individuals from the Chagres River, Panama.” *xxi* (5), 332-336. [1935.]
- c. WOODHEAD, A. E.—“The mother sporocysts of *Leucochloridium*.” *xxi* (5), 337-346. [1935.]
- d. STUNKARD, H. W.—“A new trematode, *Probolitrema californiense*, from the coelom of the sting ray, *Myliobatus californicus*.” *xxi* (5), 359-364. [1935.]
- e. AZIM, M. A.—“On the life history of *Lepoderma ramlium* Looss, 1896, and its development from a xiphidiocercaria.” *xxi* (5), 365-368. [1935.]
- f. McMULLEN, D. B.—“The life histories and classification of two Allocreadiid-like Plagiorchids from fish, *Macroderoides typicus* (Winfield) and *Alloglossidium corti* (Lamont).” *xxi* (5), 369-380. [1935.]
- g. LUCKER, J. T.—“The morphology and development of the infective larva of *Cylicodontophorus ultrajectinus* (Ihle).” *xxi* (5), 381-385. [1935.]
- h. HEDRICK, L. R.—“Taxonomy of the nematode genus *Spiroxys* (family Spiruridae).” *xxi* (5), 397-409. [1935.]
- i. HUNTER, G. W. III. & HUNTER, W. S.—“Studies on *Clinostomum*. IV. Notes on the penetration and growth of the cercaria of *Clinostomum marginatum*.” *xxi* (5), 411-412. [1935.]
- j. MACY, R. W.—“*Gyrabascus brevigastus*, new genus, new species, a bat trematode, with a note on *Distomum méhelyi* Mödinger.” *xxi* (5), 413-515. [1935.]
- k. YAMAGUTI, S.—“*Fischöderius elongatus* (Poirier, 1883) and *F. siamensis* Stiles et Goldberger, 1910.” *xxi* (5), p. 416. [1935.]
- l. MENDELSON, W.—“A method for the cultivation under sterile conditions of the larvae of *Taenia crassicolis*.” *xxi* (5), p. 417. [1935.]
- m. AMERICAN SOCIETY OF PARASITOLOGISTS.—“Program and abstracts of the eleventh annual meeting.” *xxi* (6), 421-447. [1935.]
- n. ALICATA, J. E.—“The tail structure of the infective *Strongyloides* larvae.” *xxi* (6), 450-451. [1935.]
- o. FOY, H. & KONDI, A.—“A note on a faeces survey in a rural Greek population of a Peloponnesian village.” *xxi* (6), 451-452. [1935.]
- p. LUTTERMOSER, G. W.—“A note on the life history of the monostome, *Notocotylus urbanensis*.” *xxi* (6), p. 456. [1935.]

(390a) Faust redescribes *Taxorchis schistocotyle*, originally erected to contain two museum specimens from the Brazilian peccary, *Dicotyles torquatus*. The new specimens were taken from the body cavity of their host, but there is evidence to show they had recently been in the caecum. Clues to the life-cycle are discussed. E.M.S.

(390b) In the faeces of 9 inhabitants of Las Vegas, Panama, eggs of *Capillaria hepatica* were noted. In one individual of the village Gatuncillo there were eggs of *Gongylonema pulchrum*. R.T.L.

(390c) Four differently coloured sporocysts of the genus *Leucochloridium* are described, viz., red-brown, orange, brown, and green with red-brown and yellow. The species to which these belong have not been identified. R.T.L.

(390e) A new xiphidiocercaria found in *Bulinus contortus* encysts in *Physa acuta* and *Planorbis boissyi*. These cysts fed to “*Bufo vulgaris*” developed into adults of *Lepoderma ramlium*. R.T.L.

(390f) As the life-cycles of species of *Alloglossidium* and *Macroderoides* are typical of the family Plagiorchiidae these genera are transferred to it from the family Allocreadiidae. The xiphidiocercaria of *Macroderoides typicus* develops in small rounded sporocysts in *Heliosoma trivolvis* and *H. campanulata*. These cercariae penetrate tadpoles and develop into adults in the intestine of *Amia calva*. *H. campanulata* is the first intermediary and mayflies and dragonflies are the second hosts of *Alloglossidium corti*.

R.T.L.

(390g) The infective larva of *Cylicodontophorus ultrajectinus* (Ihle) is described and differentiated from the larvae of *Strongylus* and *Poteriostomum*.

R.T.L.

(390h) Specific diagnosis and geographical distributions are given for the 9 species of the genus *Spiroxya*. *Ascaris sulcata* R. Leidy and *Ascaris penita* Leidy are synonyms of *S. constrictus* (Leidy, 1856). The nematode described by Seurat as *S. contortus* is named *S. algericus* n. sp.

R.T.L.

(390j) In *Myotis lucifugus*, found on the shore of Lake Pepin, Wisconsin, there is a new trematode species which differs in one or two characters from the family Lecithodendriidae. It is named *Gyrabascus brevigastrus* n. g., n. sp. The most closely related species is *Distomum méhelyi* Mödinger 1930 which is transferred to a new genus, *Ophiosacculus*.

R.T.L.

(390k) Yamaguti has compared *Fischoederius elongatus* and *F. siamensis* and differs from Fukui who has concluded that they are identical.

R.T.L.

(390l) The larvae of *Taenia crassicollis* removed from a rat's liver when 15 days' old have been kept alive for 35 days in a sterile tube to which a fluid nutrient of 7 drops of balanced salt solution, 2 drops of chicken embryo extract and 3 drops of filtered horse serum has been added. The larva was attached to the tube by a thin film of clotted chicken plasma and the test-tube sealed with a rubber stopper and incubated at 37.5°C. Better results follow if small pieces of rudimentary cyst wall are included.

R.T.L.

(390m) The programme contains the following papers of helminthic interest, all of which are abstracted: (i) H. Tsuchiya & L. E. Rector "Studies on intestinal parasites among rats caught in Saint Louis"; (ii) D. D. Baker & E. H. Hinman "A helminthological survey of 1315 dogs from New Orleans"; (iii) W. H. Headlee "The epidemiology of human ascariasis in the metropolitan area of New Orleans, Louisiana"; (iv) K. B. Kerr "Resistance in mice to *Ancylostoma caninum*"; (v) J. E. Ackert & J. H. Whitlock "Studies on ascarid nutrition"; (vi) W. A. Roy "A note on the prevalence of nematodes in human appendices"; (vii) J. A. Scott "Factors in the epidemiology of hookworm in Egypt"; (viii) J. E. Alicata "Infectivity of *Trichinella spiralis* after successive feedings to rabbits"; (ix) A. McIntosh & G. E. McIntosh "Parasitic fauna of birds found dead on the Washington Monument Ground during the 1935 autumnal migration"; (x) J. G. Arnold, jr. "A survey of the parasites of North American rabbits"; (xi) B. Schwartz & J. T. Lucker "Experimental infections and superinfections of pigs with lungworms"; (xii) G. L. Graham "Single larva infections of *Strongyloides ratti* Sandground, 1925, as an approach to certain problems of *Strongyloides* bionomics"; (xiii) W. W. Wantland "The blood picture of normal and trichinized white rabbits"; (xiv) W. H. Wright "The relation of vitamin A deficiency to ascariasis in the dog"; (xv) W. W. Cort, D. B. McMullen & S. Brackett

"Double infestations of snails with the cercariae of digenetic trematodes"; (xvi) B. Glading "The life-cycle of *Cercariaeum lintoni* Miller & Northrup"; (xvii) P. Beaver "A method for transplanting adult trematodes"; (xviii) D. B. McMullen "A note on the life-history of *Mosesia chordeilesia* n. sp. (Lecithodendriidae)"; (xix) S. H. McFarlane "A study of the endoparasitic trematodes from marine fishes of Departure Bay, B.C."; (xx) H. J. Bennet "The life-history of *Cotylophoron cotylophorum*, a trematode from ruminants"; (xxi) E. C. Faust & Chung-Chang Tang "A new Aspidogastroid species, with a consideration of the systematic position of the group"; (xxii) H. J. Van Cleave "The larval stages of Acanthocephala"; (xxiii) C. H. Barlow "Characteristic movements of the miracidia and cercariae of the human schistosomes of Egypt"; (xxiv) R. M. Cable "Three new species of larval trematodes from Kentucky"; (xxv) R. M. Cable & W. E. Martin "*Parorchis avitus* (Linton, 1914), a synonym of *P. acanthus* (Nicoll, 1906)"; (xxvi) T. O. Odlaug "The finer structure of the body wall and parenchyma of digenetic trematodes"; (xxvii) E. W. Price "A restudy of Stafford's types of the trematode genera *Lechriorchis* and *Zeugorchis*"; (xxviii) R. W. Macy "Two new species of *Paralecithodendrium* from bats"; (xxix) R. F. Nigrelli "Some tropical fishes as hosts for the Metacercaria of *Clinostomum marginatum*"; (xxx) R. F. Nigrelli "Experiments on the control of *Epibdella melleri* MacCallum, a monogenetic trematode of marine fishes"; (xxxi) R. F. Nigrelli "On the effect of fish mucus on *Epibdella melleni*, a monogenetic trematode of marine fishes"; (xxxii) R. F. Nigrelli "Studies on the acquired immunity of the Pompano, *Trachinotus carolinus*, to *Epibdella melleni*"; (xxxiii) J. F. Mueller "Studies on North American Gyrodactyloidea"; (xxxiv) E. C. Faust "The whole life-cycle of *Strongyloides*"; (xxxv) G. R. Coatney "Some blood parasites from Eastern Nebraska vertebrates"; (xxxvi) O. R. McCoy "Filarial parasites of the monkeys of Panama"; (xxxvii) W. W. Wantland "Effect of parathyroid extract (Lilly) and calcium lactate on trichinized white rabbits"; (xxxviii) R. M. Cable "*Cercaria kentuckiensis*, n. sp., first representative of the 'vivax' group known to occur in the United States"; (xxxix) H. L. Ward "Acanthocephala of the Burbot 'eel', *Lota vulgaris*"; (xl) S. H. Hopkins "The study of metacercariae as an approach to life-history problems"; (xli) H. W. Manter "Further occurrence of lymph vessels in distomes"; (xlii) A. A. Paul "*Polystoma integerrimum nearcticum* n. subsp. from the urinary bladder, genital ducts, kidneys and gills of *Hyla versicolor* Le Conte"; (xliii) M. F. Jones & M. W. Horsfall "Ants as intermediate hosts for two species of *Railletina* parasitic in chickens"; (xliv) J. W. Scott "On the *Diphyllbothrium* of Yellowstone Park"; (xlv) G. F. Otto "Human infestation with the dwarf tapeworm, *Hymenolepis nana*, in southern United States"; (xlvi) N. R. Stoll "Epidemiologic determinations concerning *Moniezia expansa* in sheep"; (xlvii) J. G. Arnold, jr. "A study of the Anoplocephaline cestodes of North American rabbits."

B.G.P.

(390n) The tails of the infective larvae of *Strongyloides papillosus* of sheep and *S. ransomi* of swine are tripartite not bipartite.

R.T.L.

(390p) *Cercaria urbanensis* Cort from *Stagnicola emarginata angulata* develops experimentally into *Notocotylus urbanensis* in ducklings.

R.T.L.

## 391—Journal of the Philippine Islands Medical Association.

- a. AFRICA, C. M., LEON, W. DE. & GARCIA, E. Y.—“Heterophyidiasis. II. Ova in sclerosed mitral valves with other chronic lesions in the myocardium.” xv (11), 583-592. [1935.]

(391a) Fatal cardiac invasion with the eggs of the Heterophyid trematodes, *Heterophyes brevicaeca*, *Monorchotrema taichui*, *M. taihokui* and *Diorchitrema pseudocirrata* have hitherto been confused clinically with cardiac beriberi or acute cardiac dilation. The histological lesions are detailed in this paper. Acute vascular changes, e.g., hyperinjection of the vessels and marked oedema, haemorrhages in the capillaries and thrombosis secondary to embolism of eggs with fragmentation of the affected muscle fibres are the instantaneous response to the invasion of the musculature by vast numbers of eggs. There is too sclerosis of the mitral valves with subsequent calcification without evidence of inflammation. This condition of cardiac heterophyidiasis is now stated to be relatively frequent in the Philippines.

R.T.L.

## 392—Journal of the Royal Army Medical Corps.

- a. LIPSCOMB, F. M.—“A case of cysticercosis (*T. solium*).” LXV (6), 397-400. [1935.]

## 393—Journal of the Royal Army Veterinary Corps.

- a. PARNELL, I. W.—“Some methods of controlling the spreading of internal parasites of the horse.” VI (3), 138-141. [1935.]

(393a) Parnell found that the infective larvae of nematodes were killed in 48 hours by soaking horse faeces with urine. This method has the additional advantage of increasing the manurial value of the droppings. In the proportion of 1 part to 40 of faeces, urea was also found to be effective against the larvae in the same time. Experiments to test the value of various standard disinfectants showed that 3% lye and 5% Lysol destroyed larva in faeces within 1 hour.

D.O.M.

## 394—Journal of Tropical Medicine and Hygiene.

- a. FAUST, E. C.—“Some newer aspects of schistosome infection in the western hemisphere.” XXXVIII (20), 249-259. [1935.]  
 b. HINMAN, E. H.—“Experimental studies on filarial periodicity.” XXXVIII (21), 265-267. [1935.]  
 c. CAWSTON, F. G.—“The control of bilharzia infection in Swaziland.” XXXVIII (24), 305-306. [1935.]

(394a) Faust reviews the literature of Schistosomiasis in the New World where the known intermediate hosts are four species of the genus *Australorbis*. The structural characteristics of this genus are tabulated and contrasted with those Planorbis genera which transmit the disease in the Old World. The geographical distribution and histopathology are summarized. Suggestions are made of the type of surveys which would provide the most useful data in estimating the public health importance of the disease in each country where it is endemic. Attempts to control the infection must await the collection of such data.

R.T.L.

(394b) From a study of *Dirofilaria immitis* Hinman has failed to obtain any evidence of cyclical parturition by an examination of the uteri of large numbers of females at different periods of day and night. By transfusion it is shown that the microfilariae have a long life *in vivo*. The hypothesis of chemotactic effect of salivary secretion of the mosquito intermediary has not found experimental support. Hinman believes that periodicity in this species is influenced by normal physiological processes in the host.

R.T.L.

(394c) This brief account of Cawston's visit to Swaziland where one in three children are infected with *Schistosoma haematobium* deals chiefly with incidental observations on local conditions. The main proposal is that the river-bed passing through Bremersdorp might be concreted or passed through a closed drain.

R.T.L.

### 395—Journal d'Urologie Médicale et Chirurgicale.

- a. DIAMANTIS, A.—“Bilharziomes ectopiques. Bilharziose expérimentale et stage hépatique chez l'homme du parasite bilhazien.” xxxix (4), 308-325. [1935.]

### 396—Kitasato Archives of Experimental Medicine.

- a. IZUMI, M.—“Studies concerning a new species of *Metagonimus* and its life cycle.” xii (4), 362-384. [1935.]

(396a) A new heterophyid trematode named *Metagonimus katuradai* is described. The metacercaria which is differentiated from those of known species of *Metagonimus* occurs in the fresh-water fishes *Acheilognathus lanceolata intermedia*, *Pseudorasbora parva* and *Zacco platypus* in the Hyogo Prefecture of Japan. Experimental infections were successfully induced in man, dogs, cats, mice, rabbits and rats. Eggs appeared in human faeces 6 days after infection.

R.T.L.

### 397—Klinicheskaya Meditsina.

- a. MISHIN, D. F.—[Unilocular echinococcus of perirenal tissue.] xiii, 597-598. [1935.]
- b. MIKHELSON, A. I.—[Rôle of ascariasis in surgical pathology of gastrointestinal and biliary tracts.] xiii, 708-714. [1935.]
- c. SHLYAKHMAN, A. L., BELIKOV, P. F. & YAGUDINA, R. N.—[Experimental thrombopenia produced by toxin from ascaris.] xiii, 811-814. [1935.]

### 398—Lancet.

- a. OSBORN, H. A.—“Onchocerciasis in England.” ccxxix (5853), p. 1000. [1935.]
- b. MACARTHUR, W. P.—“Cysticercosis and epilepsy.” [Correspondence.] ccxxix (5860), 1430-1431. [1935.]

(398a) The diagnosis of an endemic case of onchocerciasis in Liverpool is based on the microscopical finding in a section of tissue of a single embryo showing morphological features resembling those of *Onchocerca volvulus*.

R.T.L.

## 399—Maanedsskrift for Dyrlæger.

- a. FAULENBORG, G.—“Invasion med Iker hørende til Underfamilien Heterophyinae Ciurea hos en Kat.” XLVII (10), 249-254. [1935.]

(399a) Faulenborg describes from a cat a heterophyid fluke belonging to either *Heterophyes* or *Ciureana*: he had no access to Skrjabin's description of *C. quinqueangularis* from the cat, and owing to poor fixation was unable to detect the spines on the genital sucker characteristic of *Heterophyes*. The flukes measured 0.7 to 1.0 mm. long and 0.3 to 0.5 mm. wide, and the eggs 37 to 40  $\mu$  by 18 to 20  $\mu$ . B.G.P.

## 400—Magasin de Parasitologie de l'Institut Zoologique de l'Académie des Sciences de l'URSS.

- a. KIRJANOVA, E. S.—“The nematodes of cultivated plants in the western region of the European part of the U.S.S.R.” V, 253-299. [In Russian: English summary pp. 299-300.] [1935.]

(400a) Kirjanova presents the results of an investigation into the occurrence of parasitic and free-living nematodes on crops in west European Russia. The nematodes were obtained in water extractions of shoots and roots by means of a funnel technique and the detailed determinations of the species found are set out in a series of tables. The only parasitic species found were *Heterodera schachtii*, *Anguillulina dipsaci*, *A. pratensis* and *Neotylechus abulbosus*, the last three mostly from potato plants. The three strains of *H. schachtii* attacking potatoes, oats and peas were not found.

T.G.

## 401—Médecine Infantile.

- a. ROUËCHE, H. & TERRASSE, J.—“L'helminthiase de l'enfant et son traitement.” XLII, 142-152. [1935.]

## 402—Medical Journal of Australia.

- a. CARRODUS, A. L.—“Intrabiliary rupture of hydatid cysts of the liver. Report of five cases.” 22nd Year, II (21), 714-724. [1935.]

## 403—Medical Officer.

- a. BUTCHER, W. H.—“Round-worm infestation.” LIV (22), p. 226. [1935.]  
b. MUSGRAVE, J. A.—“Intestinal worm parasites in relation to public health.” LIV (24), 245-247. [1935.]

(403b) Of 242 children examined at the child clinics in Louth, Irish Free State, 151 were infected with ascaris and/or trichuris. Sixty showed the eggs of ascaris and 130 the eggs of trichuris in the faeces examined after mixing with equal parts of glycerine and saturated NaCl solution but without the use of concentrative methods. The majority of the samples were from children who were, or had recently been, living in streets furnished with dry middens. Only a small percentage of 60 children from streets with water flush closets showed infection. The majority of the infected cases were under 7 years of age. Musgrave suggests that the larval ascaris may aid the passage of tubercle bacilli through the intestinal wall at the time of migration.

R.T.L.

## 404—Medical Parasitology and Parasitic Diseases.

- a. SCHULZ, R. E. & SCHICHOBALOWA, N.—“Immunität bei Wurminvasionen.” IV (4), 257-280. [In Russian: German summary p. 280.] [1935.]
- b. KOROPOV, V.—“Étude expérimentale de l'influence exercée par les produits des helminthes sur le système cardiovasculaire.” IV (4), 281-287. [In Russian: French summary p. 287.] [1935.]
- c. VASSILKOVA, Z.—“Deshelminthisation des fèces contenant les oeufs d'*Ascaris lumbricoides*.” IV (4), 288-298. [In Russian.] [1935.]
- d. PLOTNIKOV, N. N. & ZERTSCHANINOV, L. K.—“Fuadinkonzentrat in der Behandlung der Opisthorchosis.” IV (4), 299-301. [In Russian.] [1935.]
- e. FRIEDMANN, L.—“Helminthoses et éosinophilie.” IV (4), 302-305. [In Russian: French summary p. 306.] [1935.]
- f. CHAJUTIN, D. & SCHUCHAT, I.—“Ueber Cysticercose des Menschen pathologisch-anatomisch betrachtet.” IV (4), 307-315. [In Russian: German summary p. 315.] [1935.]
- g. MUFEL, P.—“Helminthic infestations in children of the first year of life.” IV (4), p. 329. [In Russian.] [1935.]
- h. PLOTNIKOV, N. & ZERTSCHANINOV, L.—“On the fauna of the Trematoda of the liver of man and domestic Carnivora in Tobolsk.” IV (4), p. 330. [In Russian.] [1935.]
- i. PLOTNIKOV, N.—“On the spread of the plerocerooids of *Diphylllobothrium latum* in fishes of the rivers Irtysh and Tobol.” IV (4), p. 330. [In Russian.] [1935.]

(404a) In a 20-page review of recent work on helminthic immunity, covering 116 references to published literature, Schulz & Schichobalowa conclude that there is ample evidence for innate as well as for acquired immunity to worm infections. They draw comparisons with the established theories of bacterial immunity. B.G.P.

(404b) Koropov has investigated reduction of blood pressure in dogs following injection of the following substances, all of which were thermostabile: excretions of *Toxascaris canis* (which lived 16 to 24 days in saline at 37°C.), disintegration products of the ascarids, of *Multiceps multiceps*, and of *Taenia hydatigena*. Blood pressure was markedly reduced by injection into the jugular vein and (in heavy doses) into the hepatic portal vein, but no reduction followed after vagotomy, after injection into the carotid artery, after introduction into the intestine, or after injection in small doses into the portal vein. These results show that reduction is a reflex due to stimulation of the vagus, and that the liver can neutralize such “toxins” in limited quantities. B.G.P.

(404c) Vassilkova has tested the action of a number of disinfectants on eggs of *Ascaris lumbricoides*. Results of exposure for varying times at varying concentrations are given, showing that, e.g., 5% phenol or 10% lysol must be applied for 5 hours in order to kill the eggs. The general conclusion is that heat is a more effective agent, and that in sterilizing manure for fertilizing purposes the biothermic method (composting) should be relied upon. B.G.P.

(404d) In 1 cc. of concentrated fuadin there are 14.3 mg. of trivalent antimony, as against 8.5 mg. in ordinary fuadin. Plotnikov & Zertschaninov have tested the former in three cats and three persons infected with *Opisthorchis felineus*. In the cats there was some reduction of flukes, many

being found dead at post-mortem, but in man there was only a temporary reduction in the daily egg-output. The drug has definite toxic effects, and the dose effective against *Opisthorchis* is too near the M.L.D. to make it a safe anthelmintic. B.G.P.

(404h) *Opisthorchis felineus* was the only liver fluke found among some 30,000 from man and 50,000 from dogs and cats in Tobolsk. B.G.P.

(404i) Plerocercoids of *Diphyllbothrium latum* were found in 5 of 10 *Esox lucius* and 1 of 91 *Perca fluviatilis* examined in the Tobolsk region. B.G.P.

#### 405—Medicina Ibera.

- a. VALDÉS LAMBEA—"El síndrome tóxico de origen hidatídico; la velocidad de sedimentación y la febrícula." Año XIX, 1 (917), 861-863. [1935.]

#### 406—Medicina. Madrid.

- a. UNZAGA GONZÁLEZ, J. DE—"El quiste hidatídico de pulmón." VI, 367-395. [1935.]
- b. UNZAGA GONZÁLEZ, J. DE—"Tratamiento del quiste hidatídico de pulmón." VI, 449-476. [1935.]

#### 407—Medicina. Revista Mexicana.

- a. LUCENA, J. M.—"Equinococciosis renal bilateral." xv, 264-265. [1935.]

#### 408—Medizinische Welt.

- a. NAGEL, E. & LANGE, W.—"Beitrag zur Therapie der Wurmerkrankungen." IX, p. 1011. [1935.]

(408a) For *Ascaris lumbricoides* and *Oxyuris vermicularis* Nagel & Lange have used with success a preparation called "Oxyaskarin" which contains the basic aluminium santoninate. This and other components greatly augment the alkaline reaction of the intestine, depriving the parasites of their food, and counteract nausea. R.T.L.

#### 409—Memorias do Instituto Oswaldo Cruz.

- a. LENT, H. & FREITAS, J. F. TEIXEIRA DE—"Sobre uma nova especie do genero *Oswaldocruzia* Travassos, 1917." xxx (3), 379-386. [1935.]
- b. LENT, H. & FREITAS, J. F. TEIXEIRA DE—"Sobre dois novos nematodeos parasitos da quica: *Caluromys philander* (L.)." xxx (3), 535-542. [1935.]

(409a) A new species, *Oswaldocruzia brasiliensis*, is described by Lent & Freitas from the intestine of *Drymobius bifossatus* from Brazil. The authors separate the 15 previously described species of the genus into two groups on the size and character of the spicules. The new species lies between these two groups and has short trifurcate spicules furnished with a small apical membrane. D.O.M.

(409b) *Rictularia jaegerskioldi* n. sp. and *Subulura interrogans* n. sp. are described from *Caluromys philander* in Brazil. Twenty-eight known and two unnamed species of *Rictularia* are listed with their hosts. R.T.L.

**410—Minerva Medica.**

- a. CORTESINI, M.—“ Sulla positività della intradermoreazione del Casoni nelle cisti da echinococco suppurate.” I, 785-787. [1935.]

**411—Monatsschrift für Psychiatrie und Neurologie.**

- a. KULKOW, A. E. & STERNBERG, A. M.—“ Über die intravitale Diagnose des Zystizerkus des IV. Ventrikels und einige kombinierte Formen der Hirnzystizerkose.” XCI (2), 107-120. [1935.]

(411a) Discussing the difficulties of diagnosing cerebral cysticercosis of the 4th ventricle, Kulkow & Sternberg point out the value of a positive complement-fixation reaction, and eosinophilia of the blood and cerebrospinal fluid.

B.G.P.

**412—Montpellier Médical.**

- a. RICHE, V., MOURGUE-MOLINES, E. & LONJON, P.—“ A propos du diagnostic des kystes hydatiques.” VII, 323-333. [1935.]

**413—Münchener Medizinische Wochenschrift.**

- a. ROTTER, W.—“ Zur Frage der Auswanderung von Spulwürmern durch die gesunde Darmwand.” LXXXII (41), 1640-1641. [1935.]

**414—Münchener Tierärztliche Wochenschrift.**

- a. KOEGEL, A.—“ Parasitologische Beobachtungen an Angora-Ziegen und anatolischen Schafen.” LXXXVI (44), 517-519. [1935.]

(414a) From faeces-examination of 100 Angora goats and 135 Anatolian sheep, respectively from different parts of Turkey, Koegel reports the following helminths [figures are percentage incidence, those for sheep being in parentheses]: Fasciola 10 (1.5), Dicrocoelium 12 (1.5), Moniezia 17 (5.2), lungworms 24 (5.2), Haemonchus 30 (23), Trichostrongylus 28 (14), Ostertagia 23 (8.8), Strongyloides 14 (—), Nematodirus 12 (17.8), Oesophagostomum 20 (6.7), Bunostomum 12 (2.2), Cooperia 1 (—), Trichuris 10 (3). Of the sheep, which were from arid steppe country, 32 were free from parasites.

B.G.P.

**415—Nagasaki Igakkwai Zassi.**

- a. FUKUI, Y.—“ Ueber einen Fall von Cholelithiasis mit Ankylostomiasis der Gallenwege.” XIII, 837-838. [1935.]

**416—Nederlandsch Tijdschrift voor Geneeskunde.**

- a. REDDINGIUS, T.—“ Lymfadenocèle bij filariasis.” IV (46), 5292-5297. [1935.]  
b. FINALY, R.—“ Bijdrage tot de behandeling van elephantiasis.” IV (46), 5298-5301. [1935.]

**417—New England Journal of Medicine.**

- a. GOLDWATER, L. J., STEINBERG, I., MOST, H. & CONNERY, J. E.—“ Hemoptysis in trichiniasis.” CCXIII (18), 849-851. [1935.]  
b. KING, M. K.—“ Uncinariasis and appendicitis.” CCXIII (18), 851-854. [1935.]

## 418—New Zealand Journal of Agriculture.

- a. REID, W. D. & COTTIER, W.—“Eelworm disease of chrysanthemums.” LI (4), 219-223. [1935.]
- b. GILL, D. A.—“Hydatids. From a veterinary officer's viewpoint.” LI (6), 350-354. [1935.]

(418a) Reid & Cottier report on the occurrence of the eelworm disease of chrysanthemums caused by *Aphelenchoides ritzema-bosi* in the Palmerston North district of New Zealand. They describe the appearance and symptoms of affected plants and discuss methods of control including treatment of soil by steam and chemicals, the dipping of cuttings in lime-sulphur plus colloidal sulphur, the spraying of plants with lime-sulphur—colloidal sulphur and a strong solution of nicotine sulphate and the ringing of stems with birdlime. T.G.

## 419—Norsk Veterinaertidsskrift.

- a. HELLESNES, P.—“Rensnyltene.” XLVII (3), 117-137; (4), 194-204. [1935.]

(419a) Hellesnes deals with the helminth and arthropod parasites of reindeer, particularly in Norway. Hydatid was found in 19 out of 233 reindeer; it is very rare in domestic animals in Norway, and the few human cases are from the northern reindeer country. *Skrjabinema tarandi* was found in each of over 300 animals. Stomach worms, which were also very common, include *Ostertagia tarandi* n. sp. close to *O. trifurcata* and *O. arctica*. Two species of *Dictyocaulus* were represented in 14 out of 30 lungs examined. *Trichuris ovis* is occasionally present. B.G.P.

## 420—Novy Khirurgicheskiy Arkhiv.

- a. ASTRAKHANSKIY, V. A.—[Total extirpation of Echinococcus together with fibrous capsule and resection of liver.] XXXIII, 424-434. [1935.]

## 421—Parasitology.

- a. FRASER, W. A. C.—“The comparison of the efficiency of anthelmintics.” XXVII (4), 465-475. [1935.]
- b. JOHRI, L. N.—“On cestodes from Burma.” XXVII (4), 476-479. [1935.]
- c. GWYNN, A. M. & HAMILTON, A. G.—“Occurrence of a larval cestode in the Red Locust *Nomadacris septemfasciata* Serv.” XXVII (4), 551-555. [1935.]

(421a) Carr Fraser criticizes the statistical methods adopted by Seddon & Ross and by Roberts in assessing the efficiency of various drugs as anthelmintics. The results of these authors are re-examined by more accurate mathematical methods, and lead to different conclusions as to the efficiency of the drugs used against *Haemonchus contortus* in sheep. R.H.H.

(421b) Descriptions are given of 3 tapeworms from Rangoon, viz., *Aploparaksis kamayuta* n. sp. from *Capella stenura*, *Hymenolepis bilharzii* (Krabbe 1869) from *Corvus splendens insolens* and *H. globirostris* Baer 1925 from *Rattus rattus*. R.T.L.

(421c) A cysticeroid with unarmed scolex has been found encysted at the end of the malpighian tubules of the red locust in Nigeria. The presence of lappets overhanging the orifices of the suckers recalls the adult of *Octopetalum* Baylis 1914. R.T.L.

422—*Pediatrica Practica.*

- a. GUGLIELMINI, T. & MOLINARI, E.—“L'ascaridiasi nell'infanzia. Un caso di sindrome epilettiforme da ascaridi.” *xii*, 163-181. [1935.]

423—*Philippine Journal of Animal Industry.*

- a. JESUS, Z. DE—“Observations on natural cases of kidney-worm infestation in swine with special reference to practical method of diagnosis.” *ii* (1), 49-65. [1935.]
- b. YUTUC, L. M. & TUBANGUI, M. A.—“The treatment of canine ancylostomiasis with hexylresorcinol.” *ii* (2), 193-198. [1935.]

(423a) de Jesus finds that *Stephanurus dentatus* is the most serious parasite of swine in the Philippines and that in certain provinces over 63% of the pigs are infected. Stunted growth, cachexia, and emaciation are frequently seen in young infected pigs but these symptoms are usually absent in mature animals. Urine examination for eggs is therefore the more reliable method of diagnosis and even young pigs of from 3 to 5 months old may be found to be passing worm eggs. D.O.M.

(423b) The efficiency of hexylresorcinol as an anthelmintic against hookworms was tested by Yutuc & Tubangui on 27 dogs infected with *Ancylostoma caninum* and *A. braziliense*. The treatment resulted in a reduction of 91.75% in the number of worms in 19 of the dogs, as judged by egg counts, and 10.52% were found to be negative at autopsy. The eight remaining dogs were given a purgative in addition to the drug, but this did not show any marked additional reduction in the number of worms. D.O.M.

424—*Phytopathology.*

- a. ARNDT, C. H.—“The etiology of damping off of cotton seedlings.” [Abstract of a paper presented at the 1935 Annual Meeting of the Southern Division of the American Phytopathological Society.] *xxv* (10), 968-969. [1935.]
- b. GODFREY, G. H. & SCOTT, C. E.—“New economic hosts of the stem- and bulb-infesting nematode.” *xxv* (11), 1003-1010. [1935.]
- c. GODFREY, G. H.—“The demonstration of plant-parasitic nematodes in host tissues.” *xxv* (11), 1026-1030. [1935.]

(424a) Arndt states that although several species of free-living nematodes frequently invade normal hypocotyls of cotton seedlings they do not produce damping off in the absence of bacteria and fungi. M.J.T.

(424b) Godfrey & Scott report attack of *Anguillulina dipsaci* on salsify (*Tragopogon porrifolius*), parsley (*Petroselinum hortense*) and celery (*Apium graveolens*), three hitherto unrecorded hosts of this eelworm. The first two hosts were found affected in fields in California following a crop of garlic (*Allium sativum*) known to have been attacked by the parasite. The celery was parasitized under experimental conditions. Symptoms of disease in all three hosts are given and there are good photographic illustrations. The strain of the parasite attacking these hosts will not apparently infect lucerne, burr clover and orchard morning-glory. T.G.

(424c) Godfrey gives details of a method for revealing nematodes in plant tissues without their being obscured by the latter. Infested plant material of suitable size is first treated with hot 80% acetone in which it is left for 3 to 4 hours. This removes the chlorophyll and other reducing substances. It is then put into strong Flemming's fluid, the osmic acid in which stains the fats in the nematodes, after which it is washed, dehydrated in alcohols and cleared in clove oil before mounting. T.G.

#### 425—Plant Disease Reporter.

- a. ANON.—“Cephalobus associated with a peanut disease.” XIX (16), p. 254. [1935.]
- b. GODFREY, G. H.—“Herbaceous ornamentals heavily infested by *Heterodera marioni* (Cornu) Goodey.” XIX (17), p. 274. [1935.]
- c. ANDERSON, P. J., ARMSTRONG, G. M., BEACH, W. S., CLAYTON, E. E., GAINES, J. G., GRATZ, L. O., HENDERSON, R. G., JOHNSON, J., MILLER, P. R. & POOLE, R. F.—“Tobacco diseases in the field, 1935.” XIX (19), 295-299. [1935.]

(425b) Godfrey lists nineteen varieties of ornamental plants which are highly susceptible to attack by *Heterodera marioni*. M.J.T.

(425c) During 1935 in Georgia and South Carolina less damage than usual was caused to tobacco by *Heterodera marioni*; part of the crop was harvested before heavy infections became evident.

In eastern North Carolina the disease was also less prevalent but a few instances of infection occurred in Virginia and the usual amount of damage was caused in Florida where the root-knots tend to be smaller than those in other districts though the symptoms shown by the shoot structures are typical. M.J.T.

#### 426—Plant Protection.

- a. KIRJANOVA, E.—“Nematode diseases of potatoes.” 1935, No. 6, 86-98. [In Russian: English summary pp. 97-98.] [1935.]

(426a) Kirjanova gives an account of diseases of potatoes caused by nematodes. The symptoms of disease are briefly described in each case, together with the morphology and life-cycle of the causative nematode. *Heterodera marioni*, *H. rostochiensis*, *Tylenchus dipsaci*, *Neotylenchus abulbosus* and *Tylenchus pratensis* are thus dealt with. Of these, all except *H. rostochiensis* occur in Russian territory; their distribution is noted together with measures which are being taken to prevent their further distribution. M.J.T.

#### 427—Policlinico (Sezione Pratica).

- a. PENSO, G.—“Il ciclo di sviluppo degli Ossiuri. Sua importanza in medicina pratica.” XLII (40), 1943-1949. [1935.]

#### 428—Post-Graduate Medical Journal.

- a. STANNUS, H. S.—“An ascariis infection. A case in which the diagnosis and cure were effected by mistake.” XI (117), 247-248. [1935.]

## 429—Practitioner.

- a. FAIRLEY, N. H.—“The tropical diarrhoeas.” CXXXV (2), 167-187. [1935.]
- b. COOKE, W. E.—“Favourite prescriptions. VIII. The pharmacopoeia of the Hospital for Tropical Diseases.” CXXXV (2), 188-199. [1935.]
- c. LEE, W.—“Hydatid cyst of the lung: case report of spontaneous rupture and recovery.” CXXXV (2), 223-228. [1935.]

(429a) In his account of the tropical diarrhoeas Fairley mentions helminths as rare causes of enterogenous diarrhoea, and deals with the schistosomes and *Oesophagostomum* as causes of colonic diarrhoea. B.G.P.

(429b) Cooke includes in his paper an account of the more usual anthelmintics employed in tropical medicine. B.G.P.

## 430—Proceedings of the Indian Academy of Sciences. Section B.

- a. DAYAL, J.—“Studies on the trematode parasites of Indian fishes. I. A new trematode, *Monorchotrema taakree* n. sp. from a fresh water fish, *Pseudeutropius taakree*, from Lucknow.” II (4), 403-409. [1935.]

(430a) Dayal reviews the classification of the Heterophyidae and describes *Monorchotrema taakree* n. sp., near *M. cahirinus* (Looss, 1896), from the intestine of a fish from the river Gomti, Lucknow. E.M.S.

## 431—Proceedings of the United States National Museum.

- a. SKINKER, M. S.—“Two new species of tapeworms from carnivores and a redescription of *Taenia laticollis* Rudolphi, 1819.” LXXXIII (2980), 211-220. [1935.]

(431a) The two new species described by Skinker from the small intestines of lynxes and other carnivores in the United States are *Taenia lyncis* and *Taenia taxidiensis*. Both species are distinguished from other members of the genus found in the carnivora chiefly on the size and shape of the hooks. Cysticerci found in the lungs and pericardium of various deer are considered to be the larval stage of *T. lyncis* on account of the similarity in the hooks. D.O.M.

## 432—Proceedings of the Zoological Society of London.

- a. LEIPER, R. T.—[Helminth parasites in the living okapi.] 1935, Part 4, pp. 947-948. [1935.]
- b. LEIPER, R. T.—[Helminth parasites obtained from the okapi at post-mortem.] 1935, Part 4, p. 949. [1935.]

(432a) Seven different helminth eggs and adults of two species of nematodes were found by microscopical examination of the faeces of an okapi. These are provisionally diagnosed. R.T.L.

(432b) At a post-mortem on an okapi 19 species of helminths were collected. These belonged to 15 different genera. The following are named: *Stilesia okapi*, *Cotylophoron okapi*, *Capillaria okapi*, *Parabronema okapi*, *Cooperia okapi*, *Oesophagostomum okapi* and *Necator okapi* n. spp. R.T.L.

433—Puerto Rico Journal of Public Health and Tropical Medicine.

- a. O'CONNOR, F. W. & HULSE, C. R.—“Studies in Filariasis. I. In Puerto Rico.” XI (2), 167-272. [Also in Spanish pp. 273-367.] [1935.]

(433a) In Puerto Rico filariasis occurs commonly in the plains and valleys which provide the apparently essential wind protection for the intermediary hosts. The disease is urban rather than rural and prevails especially in poor overcrowded areas. *Culex fatigans* is the local vector. There is evidence that the parasites may proceed with their further development near the point of entry through the skin and in the first chain of lymph glands. The only demonstrable result of the presence of adults in the lymphatic tissues is dilatation, which may be considerable. No marked inflammatory reaction is observed in the vicinity of the living worms. After death of the worms in a lymphatic the vessel may be completely obliterated and in lymph glands this is followed by more or less disorganisation. The inflammatory phenomena of filariasis are thought to be associated with the absorption of the products of decomposition of dead worms. Slight infections are almost universal in the endemic areas of Puerto Rico. Lymph scrotum and varicose groin glands are rare here. Lymphangitis, adenitis, elephantiasis and hydrocele are the commonest manifestations. In certain cases elephantiasis precedes the onset of lymphangitis. Obstruction either with or without lymphangitis is the principal cause of filarial elephantiasis.

R.T.L.

434—Radiologia Medica, Rivista Mensile.

- a. BENASSI, E.—“Cisticercosi polmonare diagnosticata coll'esame radiologico.” XXII, 506-515. [1935.]

435—Report of the Chief of the Bureau of Animal Industry, United States Department of Agriculture.

- a. MOHLER, J. R.—“Zoological Division.” 1935, pp. 48-55. [1935.]

(435a) This report summarizes recent work by the staff of the Zoological Division of the U.S. Bureau of Animal Industry. The vertical migration of the larvae of horse strongyles is slight and depends on soil texture. Deep ploughing by itself is of value in control. Stephanofilariasis is now reported from 14 States in the U.S.A. Spraying of pastures with  $\text{CuSO}_4$  in the control of sheep parasites is being tested. *Fascioloides magna*, which causes heavy losses in cattle and sheep, develops in *Pseudosuccinea columella*. Although rabbits can be infected the infection only lasts 2 months after maturity is reached and the rabbit is not considered a factor of importance in the spread of this fluke. Lime, both slaked and unslaked, was found satisfactory in the control of the intermediate host.

R.T.L.

436—Revista de Cirugía de Buenos Aires.

- a. RUIZ, V.—“Hidatidosis del aparato genital femenino; comentarios sobre 165 observaciones argentinas.” XIV, p. 65; p. 137; p. 201. [1935.]

437—Revista Española de las Enfermedades del Aparato Digestivo y de la Nutrición.

- a. ROMERO CALATAYUD, A.—“Consideraciones sobre un caso de anquilostomiasis infantil.” I, 89-97. [1935.]  
 b. XIMÉNEZ DEL REY, M. & LAPORTO BORT, L.—“Contribución al estudio clínico de la anquilostomiasis.” I, 251-260. [1935.]

## 438—Revista Médica Latino-Americana.

- a. ANASTASIA, H. C.—“Quistes hidáticos del hígado abiertos en las vías biliares.” xx (236), 865-878. [1935.]

## 439—Revista Médica Veracruzana.

- a. ROUËCHE, H. & TERRASSE, J.—“La helmintiasis del niño y su tratamiento.” xv, p. 1537; p. 1566. [1935.]

## 440—Revista de Medicina y Cirugía de la Habana.

- a. PRESNO, J. A.—“Quistes hidatídicos múltiples del hígado; sobre la prevención de la hidatidosis en Cuba.” xl, 187-195. [1935.]

## 441—Revista de Tuberculosis del Uruguay.

- a. PIAGGIO BLANCO, R. A. & GARCÍA CAPURRO, F.—“Equinocosis pulmonar y tuberculosis.” iv, 323-334. [1935.]

## 442—Revue de Médecine et d'Hygiène Tropicales.

- a. LINDBERG, K.—“Arthrites suppurées du genou dans la draconculose et arthrites suppurées crypto-génétiques.” xxvii (5), 215-230. [1935.]

## 443—Revue de Microbiologie d'Épidémiologie et de Parasitologie.

- a. SYLVERS, I.—“Observations sur l'hématologie de la trichinellose.” xiv (3), 290-298. [In Russian: French summary.] [1935.]

(443a) Sylvers reports an epidemic of trichinosis after eating pork. The leucocyte count in 76 cases showed marked eosinophilia. In 3 cases the count reached nearly 50% and in 69 others was between 10 and 50%.  
P.A.C.

## 444—Revue Vétérinaire Militaire.

- a. DESCAZEUX.—“Les ‘plaies d'été’.” xix (2), 181-198. [1935.]

(444a) In his paper on equine summer sores Descazeaux deals successively with symptoms, pathological anatomy, aetiology, pathogenesis, relationships with pulmonary and gastric habronemiasis, treatment and prophylaxis. In France the sores are caused by larvae of *Habronema megastomum*, but *H. muscae* has been implicated in the Belgian Congo and Brazil. After developing to the third stage in house flies, the larvae migrate to the proboscis and actively rupture Dutton's membrane when stimulated by heat. Thus some escape into ordinary sores when the flies feed there, others on to the mucosa of nose or lips. Of the latter, some migrate down the trachea and set up nodular habronemiasis in the bronchi, others down the trachea where they become adult in the stomach of the horse. The bronchial and cutaneous lesions are due to larvae that have “gone astray” and cannot complete their development: there is no migration *via* the blood stream. Prophylaxis consists in measures against flies in dung-heaps, protection of ordinary sores from flies, and anthelmintic measures against the adult worms.  
B.G.P.

## 445—Riforma Medica.

- a. SORRENTINO, M.—“Echinococco del rene in soggetto già operato di echinococco pulmonare.” LI (19), 716-720. [1935.]

## 446—Rivista Sanitaria Siciliana.

- a. GRADO, G.—“Cisticercosi muscolare disseminata.” XXIII (10), 742-757. [1935.]

## 447—Schweizer Archiv für Tierheilkunde.

- a. BORNAND.—“Contribution à l'étude de la distribution de la distomatose bovine à *Fasciola hepatica* (L) et de son hôte intermédiaire.” LXXVII (5), 246-255. [1935.]
- b. GRIEDER, H.—“Unsere während drei Jahren gemachten Beobachtungen und Erfahrungen über Nutriakrankheiten.” LXXVII (5), 255-265. [1935.]
- c. GALLI-VALERIO, B.—“Observations helminthologiques.” LXXVII (8), 420-427. [1935.]

(447a) Bornand finds that *Fasciola hepatica* has a very low incidence in cattle in south-western Switzerland (Suisse Romande), while *Galba truncatula*, although scanty, is widespread both in valleys and in the mountains. He gives data on the distribution within this area of the fluke and its intermediary. B.G.P.

(447b) Grieder lists and discusses briefly the diseases of nutria observed by him during three years. On the basis of examining 810 nutria and 440 faecal smears he concludes that endoparasites are the most prolific cause of disease, especially trichostrongyles and *Strongyloides papillosus*. Flatworms are found only very rarely in Switzerland. B.G.P.

(447c) Galli-Valerio makes the following observations. (i) A specimen of *Ascaris lumbricoides* was shown by chemical tests to contain blood, showing that this species is haematophagous at least occasionally. (ii) Recent attempts to elucidate the life-history of *Dicrocoelium dendriticum* are discussed. The author has found *Cercaria vitrina* in *Zebrina detrita* in Valais; the mollusc can be found only on rainy days, and shows a preference for the plant *Thymus serpyllus*. The suggestion is made that the cercaria may leave the snail and encyst on vegetation. (iii) On three occasions the author has found immature cestode larvae in coprophagous beetles, which are probably intermediaries for anoplocephalid tapeworms. One of the larvae, from *Aphodius obscurus*, showed traces of the pyriform apparatus. B.G.P.

## 448—Science.

- a. STRONG, R. P.—“The importance of ecology in relation to disease.” LXXXII (2127), 307-317. [1935.]
- b. CULBERTSON, J. T. & TALBOT, S. B.—“A new antagonistic property of normal serums: the cercaricidal action.” LXXXII (2135), 525-526. [1935.]

(448a) Strong illustrates the importance of ecology in relation to disease by various examples including that of onchocerciasis. In the New World particularly, the restricted geographical distribution of the disease, on the western and southern slopes of volcanic ranges at altitudes between 2,000 and 4,500 ft., is associated with the control of climate over the vector

(*Simulium* spp.) and with the occupation of the community (coffee-growing). In Africa, however, *Simulium damnosum* breeds below 1,000 ft. and onchocerciasis has a correspondingly wider distribution.  
B.G.P.

(448b) Culbertson & Talbot have studied the lethal action of serum of man and various other vertebrates on cercariae of certain amphistomes, schistosomes and strigeids and suggest that if a relationship can be definitely established between the cercaricidal action of the serum and the resistance of a given vertebrate to infection with a specific cercaria the test with serum would aid in the selection of experimental hosts for the study of trematode life-histories.  
R.T.L.

#### 449—Scientific Monograph. Imperial Council of Agricultural Research. India.

- a. BHALERAO, G. D.—“Helminth parasites of the domesticated animals in India.” No. 6, 365 pp. [1935.]

(449a) Bhalerao supplies a pressing need in India by giving a concise and illustrated guide to the identification of the various species of helminths which have hitherto been recorded from domesticated animals in India. A useful host list follows a formal description of species arranged zoologically.  
R.T.L.

#### 450—South African Medical Journal.

- a. CAWSTON, F. G.—“Mental and general disorders due to parasitic worms.” IX (19), 663-664. [1935.]

#### 451—Southern Medical Journal.

- a. KIRBY-SMITH, J. L.—“The treatment of creeping eruption.” XXVIII (11), 999-1005. [1935.]

(451a) Kirby-Smith has seen 5,000 cases of creeping eruption during the past 24 years. He is of opinion that unsatisfactory results of treatment are chiefly due to lack of appreciation of the size of the parasite. He recommends the proper use of the ethyl chloride spray combined with a careful study of the area infected.  
R.T.L.

#### 452—Spitalul. Revistă Medicală Lunară.

- a. RADULEȚ, V.—“Un caz de ascaridoză evidențiat prin examen radiologic.” LV (5), 202-203. [1935.]

#### 453—Taiwan Igakkai Zasshi.

- a. RAI, S.—“Experimental-therapeutical observation on ‘Shikunshi’ (*Quisqualia indica* Linn.) the anthelmintica of the Chinese medicine for Ascaris.” XXXIV (10), 1628-1637. [In Japanese: English summary p. 1638.] [1935.]
- b. UJIE, N.—“On acute appendicitis connected with intestinal parasites.” XXXIV (11), 1773-1789. [In Japanese: English summary pp. 1789-1790.] [1935.]
- c. KAWAI, T.—“On the resistance of infective (filaria form) larvae of *Strongyloides stercoralis* against chemicals.” XXXIV (12), 2051-2060. [In Japanese: English summary pp. 2061-2062.] [1935.]

(453a) Powdered seeds of *Quisqualia indica* is not a powerful anthelmintic but according to Showa Rai it appears to give fairly good results in children as 62% of 34 children treated passed ascaris worms. R.T.L.

(453b) Of 330 cases of acute appendicitis operated on at Taihoku, Formosa, 23 contained helminths. Of these one case had ascaris, 20 oxyuris and 2 whipworm. The initial symptoms of irritation to or mechanical injury of the mucosa were evidently caused by the invasion of the parasites and corresponded with Aschoff's "appendicopathia oxyurica." In other cases there appeared only slight lesions and starting from these a bacterial invasion resulting in "appendicitis simplex". The prognosis, treatment and progress of parasitic appendicitis are the same as in appendicitis cases of other causation. R.T.L.

(453c) The filariform larvae of *Strongyloides stercoralis* are most readily killed by halogen compounds particularly by iodine. Of the remaining 38 chemicals tested hydrochloric acid was the most effective of the acids, caustic potash and caustic soda among the alkalis, alcohol among the general disinfectants. Dyestuffs, e.g., trypanflavin, rivanol, mercurochrome, yatren, had less potent action. The hookworm anthelmintics, e.g., carbon tetrachloride, nematol and thymol, in dilutions not quoted (in the English text) "had strong killing power". R.T.L.

#### 454—Tierärztliche Rundschau.

- a. IWANOFF, X.—"Tödliche Leberzystizerkose (Invasionsstadium) bei einem Rehkälbe." XLI (42), p. 679. [1935.]
- b. PALIMPSESTOW, M. A. & TSCHEBOTAREW, R. S.—"Zur Frage der Therapie bei Passalurose (*Passalurus ambiguus*) des Kaninchens." XLI (44), 709-711. [1935.]
- c. BLIND, C.—"Nierenkapselhämatome infolge embolisch-parasitärer Niereninfarkte." XLI (47), 758-759. [1935.]
- d. GOTTHARDT.—"Ueber die Behandlung der Sklerostomenseuche der Pferde mit Arsinosolvin Bengen und Tartarus stibiatus." XLI (47), 761-762. [1935.]

(454a) Iwanoff presents a fatal case of cysticerciasis in a faun due to numerous immature cysts in the liver. Numerous larger cysts were present in the abdominal cavity. The faun had been kept in captivity for a month by a hunter and had presumably acquired the infection from his hounds.

B.G.P.

(454b) For the detection of *Passalurus ambiguus* infestation in the rabbit, Palimpsestow & Tschebotarew recommend the examination of perianal scrapings. They find that naphthaline has a greater anthelmintic action than santonin for the control of *Passalurus*, but that the action of both these drugs is augmented by combination with calomel. No harmful effects were noticed from the use of these drugs in six months old rabbits. K.S.

(454c) Blind gives a full clinical report of a case of fatal strongyle infection in a mare, with extensive thromboses in the mesenteric arteries and secondary haematomata in both kidneys. B.G.P.

(454d) Gotthardt has had marked successes in the treatment of Strongyles in horses from the simultaneous use of arsenic, in the form of Arsenosolvin (Bengen), and Tartar emetic. On the first day Arsenosolvin 3 : 30

is given followed the next day by *Tartarus stibiatus* 5.0 gm. Both are given in the morning dissolved in the drinking water. The treatment is repeated one week later and in the succeeding week if necessary. R.T.L.

#### 455—Tijdschrift voor Diergeneeskunde.

- a. BOER, E. DE—"Experimenteel onderzoek betreffende *Ascaris lumbricoides* van mensch en varken." LXII (18), 965-973. [1935.]

(455a) The author refers to previous work on the morphological and serological identity of *Ascaris* from man and pig. Cross infection experiments have in the past suffered from the difficulty of producing artificial infection and of excluding spontaneous infection.

Sows were placed under observation a considerable time before farrowing. By anthelmintic treatment, faeces examination and strict stable hygiene *Ascaris*-free surroundings were assured for the piglets at birth. They were infected from a few days old, the infectivity of the eggs being tested on guineapigs and in a few cases on young pigs, using liver and lung lesions as an indicator.

The piglets were killed two months after the last infection. Repeated infections led to positive results both with pig and human *Ascaris*, in both cases mature, egg-producing worms being recovered. The numbers of worms in individual pigs varied much, but the infections produced with human material were notably lighter than the others. Single infection gave only one positive case out of four (25 worms) with human material, none from pig material. On vitamin A free diet one pig out of five became infected from human material, none from pig material. Controls remained uninfected. The piglets of an infected sow running on a suitable plot did not all acquire infection and the positive cases harboured from 1 to 41 worms.

The pig *Ascaris* becomes sexually mature in pigs in about nine weeks, females then being 17 cm., males 12 cm. long. In the same time human *Ascaris* in pigs reached lengths of only 10 cm. and 6 cm. respectively. It is concluded that the worms are identical and that cross infection can take place. The presence of sexually mature worms produces resistance to further infection. On infected ground earthworms were found to contain numerous infective eggs. H.M.

#### 456—Transactions of the American Microscopical Society.

- a. ANDERSON, M. G.—"Gametogenesis in the primary generation of a digenetic trematode, *Proterometra macrostoma* Horsfall, 1933." LIV (4), 271-297. [1935.]
- b. HEDRICK, L. R.—"The life history and morphology of *Spiroxys contortus* (Rudolphi); Nematoda: Spiruridae." LIV (4), 307-335. [1935.]

(456b) The larvae of *Spiroxys contortus* emerge from the egg one week after incubation in water. These larvae are ingested by and develop to the infective stage in *Cyclops leuckarti*, *C. albidus*, *C. serrulatus* and *C. brevispinosus*. The second intermediaries are mud minnows, bullheads, tadpoles

and adult *Rana clamitans* and larval and adult newts. Turtles were experimentally infected. The infected turtles were deinfested by carbon tetrachloride. Additional morphological features are noted in the adult worms.

R.T.L.

#### 457—Transactions on the Dynamics of Development.

- a. ACKERT, J. E.—“Factors in the resistance of chickens to the nematode *Ascaridia lineata* (Schneider).” x, 413-421. [1935.]
- b. HELLER, M. R.—“On the migration of Trichinella larvae.” x, 433-446. [In Russian : English summary.] [1935.]
- c. SHALIMOV, L. G.—“The influence of the ultra-violet light on the development of the eggs of parasitic worms : *Parascaris equorum* syn. *Ascaris megalocephala*, *Enterobius vermicularis* and *Strongylus equinus*.” x, 447-461. [In Russian : English summary.] [1935.]

(457a) Ackert finds that resistance in chickens to *Ascaridia lineata* is affected by the blood supply, age of the host and the diet. The heavy varieties of chicken are more resistant than the lighter breeds. The food of the worm is unknown. It cannot live in the body cavity of the host which suggests that it is not a tissue feeder. Vitamins are not essential to its well-being.

P.A.C.

(457b) Heller finds that the migration of *Trichinella* larvae is mainly a passive carriage through the blood stream, though very young larvae exhibit active movements. They generally pass to the blood vascular system via the lymph vessels but direct penetration of capillaries does occur. He suggests that oxygen may be the decisive factor influencing the intensity of infection within the muscles as those muscles which get a good supply of oxygen are usually more heavily populated than the others.

P.A.C.

(457c) Shalimov finds that a 5-minute irradiation with a mercury vapour lamp at a distance of 50 cm. is lethal to all the eggs of *P. equorum* and *E. vermicularis*, while 3 minutes is sufficient to kill *S. equinus*. Partial irradiation causes irregular development. The efficiency of the lamp under field conditions is impaired as coloured filters such as urine and faeces act as a protection to the eggs.

P.A.C.

#### 458—Transactions of the Royal Society of Tropical Medicine and Hygiene.

- a. AUGUSTINE, D. L. & DRINKER, C. K.—“The migration of microfilariae (*Dirofilaria immitis*) from the blood vessels to the lymphatics.” XXIX (3), 303-306. [1935.]
- b. ROMITI, C.—“Bancroftian filariasis.” [Correspondence.] XXIX (3), 313-314. [1935.]
- c. LANE, C.—“Bancroftian filariasis : a wrong inference and right conclusions.” [Correspondence.] XXIX (3), 314-315. [1935.]

(458a) By transfusing blood from an infected to a healthy dog, Augustine & Drinker have shown that the microfilariae of *Dirofilaria immitis* not only pass readily through the peripheral capillaries but also leave the blood stream and enter the lymphatics. There was no cellular response to the living microfilariae.

R.T.L.

## 459—Urologic and Cutaneous Review.

- a. CAWSTON, F. G.—“A comparison of methods employed in treating bilharzia disease.” xxxix (8), 559-561. [1935.]

(459a) A new “preparation of antimony containing calcium” has been tested in the treatment of a case of *Schistosoma haematobium* but did not prove superior to Fouadin. Cawston maintains that injections of freshly prepared tartar emetic are free from undesirable toxic effects. He is of opinion that the therapeutic ideal should be a preparation administered intravenously without local and general disturbances and quicker in action than antimonium potassium tartrate. He reports favourably on the application of antimony to septic skin conditions associated with the creeping eruption of Natal.

R.T.L.

## 460—Veterinary Record.

- a. BROWN, J.—“The specific value of crude iron compounds in the treatment of ‘pine’ in cattle and sheep.” xv (41), 1233-1234. [1935.]
- b. TAYLOR, E. L.—“Acute parasitic bronchitis in adult cattle caused by immature lungworms.” xv (43), 1280-1284. [1935.]
- c. TAYLOR, E. L.—“Differential enumeration of the species of nematodes associated with parasitic gastritis in sheep and cattle.” xv (50), 1511-1514. [1935.]
- d. STEWARD, J. S.—“Fistulous withers and poll-evil. Equine and bovine onchocerciasis compared, with an account of the life-histories of the parasites concerned.” xv (52), 1563-1575. [1935.]

(460a) Although worm infestation of young stock is found in association with other factors than iron deficiency, young lambs have all attained splendid condition without anthelmintic treatment when allowed access to a mixture of iron and salt.

R.T.L.

(460c) As a sequel to a communication in Vet. Rec., xiv (18) 474-476 [see Helm. Abs., Vol. III, No. 174a] giving a method of estimating the number of worms in the fourth stomach and small intestine of sheep, Taylor now shows how the actual number of each species can be calculated. Small samples from the fluid containing the worms are taken by means of a trumpet-ended pipette and placed on slides. These are examined under the microscope and the process is continued until a total of 50 worms have been identified. From the estimate of the total number of worms present the actual number of each species is then calculated. A convenient key together with figures illustrating the character used in differentiating the worms are included in the paper.

D.O.M.

(460d) After reviewing the literature dealing with the association in horses of *Onchocerca cervicalis* with fistulous withers and poll-evil Steward summarizes his previous researches which showed that complete development of this parasite takes place in England in *Culicoides nubeculosus*. A similar life-history has been found to occur in a species of *Simulium* for *Onchocerca gutturosa* of cattle. These midges have a marked seasonal incidence in England where the infective period is said to extend from mid-May to the first spell of winter.

R.T.L.

## 461—Wiener Klinische Wochenschrift.

- a. STERN, V.—“Ueber die Spontanheilung des multiplen Lungenechinokokkus.” XLVIII (40), 1211-1214. [1935.]
- b. CHIARI, O.—“Wurmkrankheiten im Kindesalter.” XLVIII (42), 1293-1299. [1935.]
- c. GÖGL, H.—“Zystizerkose des Gehirns.” XLVIII (46), 1417-1419. [1935.]

## 462—Zeitschrift für Infektionskrankheiten, Parasitäre Krankheiten und Hygiene der Haustiere.

- a. WOLFFHÜGEL, K.—“Zu ‘Almarza, N.: Die Leberegel des Schafes.’” XLVIII (3), 196-198. [1935.]
- b. PONOMARENKO, F. M.—“Zur Statistik, Morphologie und Biologie der Spirozerkose des Hundes.” XLVIII (4), 219-229. [1935.]
- c. BOER, DE.—“Experimentelle Untersuchungen über *Ascaris lumbricoides* des Menschen und des Schweines.” XLVIII (4), 248-269. [1935.]

(462a) Wolffhügel shows that the 7 species of trematodes recorded by Almarza from sheep in Spain [see Helm. Abs., Vol. IV, No. 74a] are reducible, from his descriptions, to *Fasciola hepatica* and *Dicrocoelium dendriticum*. B.G.P.

(462b) Ponomarenko has found *Spirocerca sanguinolenta* in 40% of 360 dogs, varying in age, sex, weight and breed, in Ukraine. Incidence data are tabulated under these headings, and also under location (organs) by age of dog, and by season of year (spring and autumn). The organs most usually infested are the aorta (65.4% of cases), oesophagus (52.9 %) and stomach (30.1%). He disputes Marotel's view that the infective larvae penetrate the stomach wall and become adult there, some passing by the blood stream to the aorta where they mature and discharge their eggs into the lumen. Instead, he considers, the infective larvae all penetrate the intestinal wall and migrate via portal vein and liver to the right heart, lungs, left heart, aorta, and so by the vasa vasorum to the media of the aorta, where they live in fibrous nodules until nearly mature. Then, rupturing the intima, they fall into the lumen of the aorta and travel to the oesophagus, stomach, etc., in which a second nodule is produced and from which the eggs are discharged. B.G.P.

(462c) This paper on the infection of pigs with human and pig strains of *Ascaris lumbricoides* is a more extensive edition of a paper published by de Boer in Dutch [see above No. 455a]. B.G.P.

## 463—Zeitschrift für Klinische Medizin.

- a. WIGAND, R.—“Anguilluliasis. (An Hand eines sporadischen Falles von Anguillula intestinalis in Ostpreussen).” CXXVIII, 308-323. [1935.]

## 464—Zeitschrift für Parasitenkunde.

- a. YAMAGUTI, S.—“Über die Cercarie von *Clonorchis sinensis* (Cobbold).” VIII (2), 183-187. [1935.]
- b. ERHARDT, A.—“Systematik und geographische Verbreitung der Gattung *Opisthorchis* R. Blanchard 1895, sowie Beiträge zur Chemotherapie und Pathologie der Opisthorchiasis.” VIII (2), 188-225. [1935.]

(464a) Yamaguti has redescribed and illustrated the *Clonorchis sinensis* cercaria, obtained living from *Bulinus striatulus japonicus* in Okayama. It

differs from that described by Faust & Khaw mainly in details of tail structure and in the possession of fine teeth just dorsal to the mouth, and from the *Opisthorchis* cercaria described by Vogel in the number of hystolytic glands and the caudal excretory system.

B.G.P.

(464b) In a revision of the genus *Opisthorchis*, with illustrated re-descriptions of the species and a diagnostic key, Erhardt points out that the subgenus *Amphimerus* (with yolk glands extending to the level of the posterior testis) is confined to the New World, and the other subgenus, *Opisthorchis*, to the Old World. Included in the latter, apart from clearly defined species like *O. viverrini*, are two groups or *species geographica* each containing several geographical subspecies viz., *O. tenuicollis* (*tenuicollis*, *felineus* and *geminus*) and *O. longissimus* (*longissimus*, *simulans*, *dendriticus* and *asiaticus*). The two species *O. sinensis* and *O. obsequens* constitute a "geographical genus".

B.G.P.

#### 465—Zentralblatt für Bakteriologie. Abteilung I. Originale.

- a. WIGAND, R.—"Ueber die Konkurrenz von Darmparasiten. I. *Taenia serrata* und *Diphyllbothrium latum* im Dünndarm des Hundes nach experimenteller Verfütterung von Diphyllbothrium-Plerozerkoiden zu einer bereits vorhandenen *Taenia serrata*." CXXXV (4/5), 216-220. [1935.]
- b. THEILER, H. & AUGUSTINE, D. L.—"Zur Frage der immunbiologischen Diagnose der Trichinose." CXXXV (4/5), 299-309. [1935.]
- c. GALLI-VALERIO, B.—"Parasitologische Untersuchungen und parasitologische Technik." CXXXV (4/5), 318-327. [1935.]

(465a) Wigand found that the presence of a natural infection of *Taenia serrata* in a dog tended to inhibit an artificially superimposed infection with *Diphyllbothrium latum*. The latter developed and produced eggs, but rapidly died out. The author's observations on the incidence of pure and mixed helminthic infections in man in East Prussia show that two helminths inhabiting the same part of the intestine (e.g., *Ascaris* and *Dibothriocephalus*) tend not to occur together.

B.G.P.

(465b) Theiler & Augustine review the recent work on the precipitin and intradermal reactions in the diagnosis of *Trichinella* infection in man. In view of the ambiguity and occasional complete absence of other criteria, they regard these reactions as of high diagnostic value, particularly if both are used. The intradermal reaction may be expected in about 3 weeks after infection, while specific precipitins appear in from 4 to 5 weeks as a rule.

B.G.P.

(465c) Galli-Valerio contributes: (i) 77 brief parasite-records, mostly from the Lausanne district; (ii) data showing the danger of importing game birds and animals harbouring parasites; (iii) a few notes on vermin found in various houses; (iv) some cases of pseudo-parasitism; (v) notes on staining technique.

B.G.P.

#### 466—Zentralblatt für Bakteriologie. Abteilung I. Referate.

- a. ZUNKER, M.—"Zur Biologie von Menschenbandwurm und Rinderfinne (Berliner mikrobiologische Gesellschaft, Sitzung vom 14. Januar 1935)." CXVII (15/16), 379-384. [1935.]

(466a) In the course of an account of the life history of *Taenia saginata*, Zunker states that the irrigation of pastures with sewage liquors does not

always lead to increased cysticercosis in the cattle subsequently grazed on those pastures. The point is made, and supported in the discussion by Bongert, that both the onchospheres and liver-fluke cercariae penetrate the intestinal mucosa and travel to the liver via the lymphatics. Bongert says that methylene blue injected into a mesenteric lymphatic gland will stain the entire liver.

B.G.P.

#### 467—Zentralblatt für Chirurgie.

- a. HOSEMANN, G.—“Über den Ascarisileus (zu der Mitteilung von Szabó in N<sup>o</sup>. 12 dieses Zbl.)” LXII (21), 1227-1228. [1935.]

#### 468—Zoologischer Anzeiger.

- a. HEINZE, K.—“Weitere neue Parachordodes-Arten aus Asien. (Nachtrag zu meiner Arbeit über das Genus *Parachordodes* Camerano).” CXII (5/6), 155-158. [1935.]
- b. FRANKENBERG, G. v.—“Trematodencysten in Turbellarien.” CXII (9/10), 237-242. [1935.]

(468a) Heinze gives morphological descriptions of *Parachordodes sciachitanoi* n. sp. and *P. lestici* n. sp. Of the former species both the female worm and host are unknown; the male, on which the description is based, is represented in the Berlin Zoological Museum and was collected at Dsungarei, Ala Tau. The latter species was extracted from the Carabid beetle, *Lesticus magnus* Motsch, collected in Japan, and again the description is based only on the male.

J.N.O.

(468b) Frankenberg reports the occurrence of *Cercaria spinifera* encysted in *Planaria polychroa*, *Bdellocephala punctata* and *Microstomum lineare*.

R.T.L.

### NON-PERIODICAL LITERATURE.

- 469—BLACKLOCK, D. B. & SOUTHWELL, T.—“A guide to human parasitology.” London, 2nd Edition, 259 pp. [1935.]

This guide, now in the second edition, is designed to meet the requirements of those medical practitioners to whom no laboratory facilities are available for diagnosis as well as for those preparing for the Diploma of Tropical Medicine. The presentation of the subject matter is deliberately unorthodox. The authors succeed in their laudable effort to avoid the overwhelming mass of nomenclature and anatomical detail in which many of the diagnoses are shrouded in clinical text-books. Descriptions are restricted to those of immediate diagnostic value. The definitions given for classes, superfamilies and genera are curtailed to such detail as will serve only for human parasites and not for allied species in other vertebrates. Under each species the essentials of morphology, life history, diagnosis and pathogenicity are dealt with in a clear and simple manner. At the end of the volume there are a series of diagrammatic representations setting out the main steps in the life history of the important species and a set of tables synthesizing the facts so far as these are essential from a public health point of view.

R.T.L.